

**Workplace  
Functional Ability  
Medical Guidelines**

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**Utah Medical Association  
1994**

## WORKPLACE FUNCTIONAL ABILITY: MEDICAL GUIDELINES

### Foreword

The medical profession has a long tradition of concern for the quality of patients' lives, including their ability to work.

To provide guidelines to facilitate beginning to work or returning to work after developing health problems and to provide a means of communicating more meaningfully with employers about the problems, a task force on functional ability in the workplace was established by the Utah Medical Association. Lacking any clear precedent, a task force of twenty-eight physicians, designated by their peers, has developed the Medical Guidelines for Workplace Functional Ability.

We have emphasized the concept of "functional ability" to do various kinds of work, leaving to others concerns for handicaps, disability or impairment as they may be defined by various groups. We believe this focus will benefit all concerned. We have had encouragement for these efforts from representatives of a variety of community resource agencies and of other professions.

We believe this effort is consistent with the AMA Principles of Medical Ethics: "A physician shall recognize a responsibility to participate in activities which contribute to an improved community." It is also consistent with Hippocrates' code, "The regime I adopt shall be for the benefit of my patients according to my ability and judgment, and not for their hurt or any wrong," and with part of his first aphorism "Judgment is difficult."

I pledge the members of the Utah Medical Association will do their best.

GEORGE C. PINGREE, M.D.  
President  
Utah Medical Association

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Note: These Workplace Functional Ability Guidelines have been developed as a public service for the community at large for the benefit of patients, workers and would-be workers. They will be useful not only for physicians and other health care providers, but also for members of other professions, employers and their staffs, compensation insurers, various agencies and institutions, and for all who have a concern for occupational care problems. Copyright 1994.

Copies of the Workplace Functional Ability Guidelines and the Report Forms will be available at a reasonable cost from the Utah State Department of Health, 288 North 1460 West, P.O. Box 15680, Salt Lake City, Utah 84116-1580. All or part of the Workplace Functional Ability Guidelines may be duplicated freely by individuals or organizations for their use, but not for purposes of sale or profit.

The Utah Medical Association is most grateful for the willingness of the Utah State Department of Health to make copies of the Guideline available to all of the different health care providers of the state and to the variety of agencies, employers and other interested parties who will find the Guidelines useful in their work.

## WORKPLACE FUNCTIONAL ABILITY: MEDICAL GUIDELINES

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## GENERAL INTRODUCTION TO WORKPLACE FUNCTIONAL ABILITY: MEDICAL GUIDELINES

These medical profiles of functional ability in the workplace have been developed by members of the Utah Medical Association as a means of facilitating the beginning to work or return to work of individuals with a wide variety of temporary or permanent impairing conditions. The basic concept of fairness and responsibility which guided their development are included in Appendix I.

### Use by Health Care Providers

The medical profile represents a series of progressive steps in each category whereby a person's functional ability to perform work activity may be simply indicated. They are to be used with judgement in individual cases, but represent a general consensus of those expert in the field. The profiles are flexible so that if, for example, injured workers show progressive recovery, their profiles can show a progressively greater tolerance for more demanding work.

Although the employer has the ultimate responsibility for any work accommodations it is reasonable for the health care provider to make suggestions for possible accommodations to be considered. These suggestions are often based upon limited understanding of job requirements, so that they should not be viewed as binding on the employer.

### Use of Skill and Judgment

The following quotation from the current "AMA Guides to Evaluation of Permanent Impairment" represents the philosophy by which application of these Medical Profiles in the Workplace should be governed.

"It should be understood that the Guides do not and cannot provide answers to every type and degree of impairment, because of the considerations noted above and the infinite variety of human disease, and because the field of medicine and medical practice is characterized by constant change in understanding disease and its manifestations, diagnosis, and treatment. Further, human functioning in everyday life is a highly dynamic process, one that presents a great challenge to those attempting to evaluate impairment."

"The physician's judgment and his or her experience, training, skill and thoroughness in examining the patient and applying the findings to the Guides criteria will be factors in estimating the degree of the patient's impairment. These attributes compose part of the "art" of medicine, which together with a foundation in science, constitute the essence of medical practice. The evaluator should understand that other considerations will also apply, such as the sensitivity, specificity, accuracy reproducibility, and interpretation of laboratory tests and clinical procedures, and variability among observers' interpretations of laboratory tests and clinical procedures."

### Use by Individuals

If an individual has a condition, illness or an injury that may affect his ability to work, he/she may request an examination to determine his health profile, which he may present to his employer to facilitate his optimal beginning to work or return to modified or full duty work, within his limitations.

### Use by Employer

If an employer is aware of an individual's need for reasonable accommodation, he may request a medical profile to assist in making reasonable accommodations to make possible performance of the essential job functions of that particular job (or of others under consideration), or to determine if there is a direct threat to the health or safety of the individual or of others. Under provisions of the Americans With Disabilities Act, he may not use it as a device for selecting to whom a job offer is to be extended, but only as a means of placement after the job offer has been made.

#### Use by Workers' Compensation Carriers

A health profile may be useful in determining when an injured individual may return to work, if only in a limited capacity, provided such alternative work is available in the workplace. Also, it may indicate when the medical condition has stabilized for the purpose of future planning, including appropriate job placement or training, or initiating an impairment rating, if appropriate.

#### Use by Other Agencies or Institutions

At their discretion, a medical profile for the workplace may be used, if only as a screening device, by other agencies, such as Vocational Rehabilitation, Social Security, Medicaid, Medicare, detention facilities, schools, or for determining eligibility for handicapped parking privileges, etc.

#### Organization of Medical Profiles

These medical profiles are divided into twenty-one categories, representing the chief subdivisions of medical impairment as it affects the workplace. These categories have been adapted from "AMA Guides to the Evaluation of Permanent Impairment (Fourth Edition)." The profile for each category consists of two parts: (1) a narrative summary of common disorders included in the category and some general observations about their relationship to the workplace, and (2) a tabulation showing the specific medical findings appropriate to each profile. (This follows the model successfully used in driver's licensing profiling since 1979.) Also, possible ideas for workplace accommodations to be considered by an employer are included.

#### Sequence Under Each Category

For the sake of ease of communication, each of the categories of disorders has been organized with generally similar criteria, while accommodating to the diversity of effects of different conditions on functional ability in the workplace.

Each profile sheet begins with Level 1 for persons who have never had any involvement with the health problems in that category. Level 2 is for those who have had a problem, but have completely recovered from it. These categories represent no limitations on appropriate work activities, but will provide a statistical data base for some occupations with extremely high requirements.

Levels 3 through 7 represent increasing degrees of impairment which reflect on a person's work capability, so that these generally reflect a decreasing level of functional work ability. These abilities range from heavy duty to medium to light to sedentary duties, at times including the concept of decreased stamina as well. (See Appendix III for Levels of Work.) These levels are accompanied by ideas for typical accommodations that may be considered at the work site. Aside from physical strength and stamina, Levels 3 through 7 will reflect a wide variety of limitations based on impairment of vision, hearing, ability to learn, episodes of loss control, etc., with the larger numbers reflecting decreasing functional ability.

Level 8 (Special Circumstances) has been used to indicate a special circumstance that may fit well with the above listed levels. It should be used with considerable discretion and its most useful if the health care provider has available accurate information about proposed work activities.

Level 9 (Under Evaluation) is to be used temporarily to cover situation where there is a need to carry out diagnostic studies or test responses to a treatment approach. It should not be extended indefinitely.

Level 10 (No Work) is used to indicate a condition where no work, not even sedentary with or without special accommodation is appropriate. It may be used either for conditions which are expected to be permanent or for conditions during a period of recovery.

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### Levels of Work

While many of the functional ability categories are concerned with specialized capabilities, such as vision, hearing, learning, etc., others relate primarily to physical demands for lifting or carrying. In these categories, the U. S. Department of Labor standards for the physical demands of different levels of work have been used. In simplified form, they indicate levels in terms of occasional lifting as follows: heavy - 100 lbs; medium - 50 lbs; light - 20 lbs; and sedentary - 10 lbs. Anyone given a profile level of heavy work may also be considered for very heavy work (lifting over 100 lbs), provided they have appropriate physical as well as other health characteristics for it. (See Appendix III for further details.)

### Suggestions for Evaluation of Subjective or Intermittent Symptoms

The significance of pain or other subjective or intermittent symptoms is often difficult to evaluate in terms of functional ability in the workplace. The following, adapted from the AMA Guides, may be useful in evaluating symptoms or signs.

#### Intensity -

Minimal:	Annoying, but not interfering with activities.
Slight:	Tolerated, but diminished capacity to carry out some activities.
Moderate:	Extensive diminution in capacity to carry out specific activities.
Marked (or severe)	Precludes carrying out many activities.

#### Frequency -

Intermittent:	Occur less than 1/4 of waking time.
Occasional:	Occur between 1/4 and 1/2 of waking time.
Frequent:	Occur between 1/2 and 3/4 of waking time.
Constant:	Occur between 3/4 and all of waking time.

Recurrent acute pain should be identified as primary or neurogenic and related to the underlying cause. Psychogenic pain or chronic pain syndrome are mental disorders and should be profiled under Category L-P. (Psychiatric/Psychological/Emotional Disorders.)

### Medical Report Form

The Functional Ability Medical Report Form has three purposes. First, it allows the person to authorize release of information. Second, it allows the health care provider to indicate a profile level for appropriate category and indicate when and for how long it is to apply. Third, it provides an opportunity for the health care provider to make suggestions to the employer as to possible accommodation that seem appropriate to the condition and the level of limitation indicated. More specific restrictions than those spelled out by the profile level may be indicated on the Report Form in the place provided for Comments/Treatment/Recommendations/Suggestions, etc., or a separate slip may be attached. For example, in a shoulder problem, notation may be made "no work above shoulder level," if appropriate.

The first copy of the NCR form will be retained for office records; the second copy is from the employer; and the third is for the employee. A copy may also be made for an insurance carrier. A worker who may not wish his employer to know of a health condition will simply not sign a release and no report will be made except where required by law, as in driver licensing or workers compensation cases.

### Application to the Workplace

These profiles have been designed to relate to activities at the workplace. Because there are so many variables involving a person's place of residence and means of transportation to the work site, these considerations are not included in the profile level. However, in many cases, a company parking lot is considered part of the work site, so that a suggestion for special, close-in parking privileges or other accommodations may be appropriate, based on the medical profile.

## Workplace Functional Ability Medical Report Form

Name  Phone

Home Address

I hereby authorize my physician or other health care provider to release to  information about my health condition as it may relate to the appropriateness and wisdom of beginning or returning to work.

Signature  Birthdate  Current date

**To Whom It May Concern:** This report is being made to facilitate the beginning or return to modified or full-duty work by the above-named individual. I have checked any and all categories of which I am aware that may affect work status, as outlined in the Workplace Functional Ability Medical Guidelines.

Nature of health problem(s):   
(In general terms, such as "back", "heart", etc.)

X = Functional Ability Profile with use of personal compensating device(s), such as glasses, hearing aids, braces, or prostheses, etc.

Profile Category	Functional Ability Profile Level									
	1	2	3	4	5	6	7	8	9	10
A-U	Musculoskeletal - Upper Extremity									
A-H	Musculoskeletal - Hand									
A-L	Musculoskeletal - Lower Extremity									
A-S	Musculoskeletal - Spine									
B-G	Neurology - General									
B-E	Epilepsy/Other Episodic Disorders									
C	Pulmonary (Lung)									
D	Cardiovascular (Heart/Blood Vessels)									
E	Hematology/Immunology/Oncology									
F	Ophthalmology (Eye)									
G	Otolaryngology (Ear/Nose/Throat)									
H	Gastroenterology (Digestive)									
I-G	Genitourinary (Kidney/Bladder-M or F)									
I-W	Genitourinary (Women's/Pregnancy)									
J	Diabetes									
K	Dermatology (Skin)									
L-M	Memory/Learning/Communication									
L-P	Psychiatric/Psychological/Emotional									
L-S	Substance Use Disorders									
M-M	General Medical									
M-S	General Surgical									

May begin or return to work activity appropriate to the above profile:  as of current date, or  approx. \_\_\_\_\_

Hrs. of work:  Full time  
 Less than full time-approximately \_\_\_\_hrs/day; approx. \_\_\_\_days/week  
 Gradually increase to full time by \_\_\_\_\_

Stability:  Medical stability has been reached (little change expected). Date stability reached \_\_\_\_\_  
 Not fully stable. Should be reviewed in approximately \_\_\_\_ weeks or \_\_\_\_ months.

Possible workplace accommodation(s) other than implied by the profile level:  
(This and the possible adaptations for various profile levels are suggestions for employers to consider in determining if the essential functions of a job may be accomplished within the scope of limitations indicated by the profiles.)

Comments/treatment recommendations/suggestions, etc.:

Printed name of health care provider  Address

Phone

Signature  Date  Degree/Title

*Attach additional sheets if necessary. Information in this report is to be handled confidentially under ADA criteria.*

## Summary of Profile Levels and Work Activity\*

Category	Profile Levels									
	1	2	3	4	5	6	7	8	9	10
A-U	All work activities									
A-U	All work activities									
A-U	Musculoskeletal — Upper Extremity	Infrequent heavy lifting — affected extremity	Medium lifting — affected extremity	Light lifting — affected extremity	No lifting — affected extremity	No lifting — either extremity	No lifting — either extremity	According to special circumstances — depends upon nature of problem	Temporary adjustment — under evaluation — depends on situation	No work activity appropriate
A-II	Musculoskeletal — Hand	Minimal loss of skill/lifting — one hand	Slight loss of skill/lifting — one hand	Medium skill/lifting — one hand	Minimum skill/light tasks — bilateral	Substitute for all hand functions				
A-L	Musculoskeletal — Lower Extremity	Heavy: May Lift — Occasional - 100 lbs. Frequent - 50 lbs. Constant - 20 lbs.	Medium: May Lift: Occasional - 50 lbs. Frequent - 20 lbs. Constant - 10 lbs.	Light: May Lift: Occasional - 20 lbs. Frequent - 10 lbs. Constant - Negligible	Sedentary: May Lift - Occasional - 10 lbs. Frequent - Negligible Constant - Negligible	Limited sedentary or substitute functions				
A-S	Musculoskeletal — Spine	Heavy: May Lift — Occasional - 100 lbs. Frequent - 50 lbs. Constant - 20 lbs.	Medium: May Lift: Occasional - 50 lbs. Frequent - 20 lbs. Constant - 10 lbs.	Light: May Lift: Occasional - 20 lbs. Frequent - 10 lbs. Constant - Negligible	Sedentary: May Lift - Occasional - 10 lbs. Frequent - Negligible Constant - Negligible	Limited sedentary or substitute functions				
B-G	Neurology — General	Moderately high risk tasks	Moderate risk tasks	Slight risk tasks	Slight risk or special limits	Sedentary or ground-level tasks				
B-E	Epilepsy/Other Episodic Disorders	Heavy, not sustained	Medium	Light or intermittent/medium	Sedentary, without oxygen	Sedentary, with oxygen				
C	Pulmonary (Lung)	Heavy	Medium	Light	Sedentary	No risk to others				
D	Cardiovascular (Heart/Blood Vessels)	Heavy	Medium	Light	Sedentary or decreased standing	Limited sedentary				
E	Hematology/ Immunology/Oncology	Heavy	Medium	Light	Sedentary or decreased standing	Limited sedentary				
F	Ophthalmology (Eye)	No commercial driving	No undue risk - moving equipment/power seats	Desk/bench work	Sound/light signals	No allergens/irritants				
G	Otolaryngology (E.N.T.)	No special hearing skills	Limited hearing	No hearing required	Limit noise exposure	No allergens/irritants				
H	Gastroenterology (Digestive)	Heavy, except at intervals	Medium	Medium — less work load	Sedentary	Selected facilities				
I-G	Genitourinary - General (G.U. - Male or Female)	Heavy	Medium	Light	Sedentary	Selected facilities				
I-W	Genitourinary — Women/Pregnancy	Heavy	Heavy, with adjustment	Medium	Light	Sedentary				
J	Diabetes	Heavy	Allowance for access to snacks/meals and regular work schedules		Limited risk tasks	Sedentary/limit standing				
K	Dermatology (Skin)	Limit exposure to allergens/irritants	Minimize irritants	Eliminate allergens	No exposure to irritants	No exposure to allergens				
L-M	Microscopy/Imaging/ Communication	Learn new, complex tasks	Complex tasks; usual supervision	Previous complex tasks with assistance	New, simple tasks with supervision	Simple tasks with supervision				
L-P	Psychiatric/ Psychological/Functional	All — with monitoring	Select tasks; monitoring	Medium tasks; close supervision	Limited tasks/risks; close supervision	Highly selected tasks/risks; close supervision				
L-S	Substance Use Disorders	Moderately high risk tasks; normal supervision <sup>a</sup>	Moderate risk tasks; intermediate supervision <sup>a</sup>	Slight risk tasks; increased supervision <sup>a</sup>	Limited risk tasks; close supervision <sup>a</sup>	No risk to self; close supervision <sup>a</sup>				
M-M	General Medical	Heavy; may reduce hours	Medium	Light	Sedentary	Limit exposure to others				
M-S	General Surgery	Heavy; may reduce hours	Medium	Light	Sedentary	Depends on type of problem				

\* For further information, see General Introduction and Narrative and Table for each category.

<sup>a</sup> These allow for work limitations are intended for the consideration of the employer, who has final



**CATEGORY A-U: MUSCULOSKELETAL-UPPER EXTREMITY  
(Except Hand)**

The upper extremity has four functional elements: (1) the shoulder, (2) the elbow, (3) the wrist, and (4) the hand. Each of these may affect functional ability in the workplace in different ways. The first three and the structures related to them are profiled in this category. They have specific functions in addition to serving to position the hand for its functions. Because of the unique role of the hand in carrying out highly specialized tasks, the hands are profiled under a separate category. Category A-H (Musculoskeletal-Hand). On occasion, functional ability level should be given for both categories. For example, a shoulder injury requiring an airplane splint would also prevent hand function because of the non-functional position of the hand.

Functional ability may be limited by:

- (a) Anatomical absence of any portion of an extremity.
- (b) Limitation of the range of motion, either by ankylosis, joint disease, or other limitations.
- (c) Weakness of muscles controlling movements.
- (d) Loss of feeling of all or part of an extremity.
- (e) Pain, either at rest or on movement. This may be associated with increased sensitivity to temperature changes.

Limitations not explainable by the foregoing, such as non-anatomic functional motor or sensory disturbances, including excessive pain complaints should be classified under Category L-P (Psychiatric/Psychologic/Emotional). Likewise, disturbances of upper extremity function because of multiple sclerosis, Parkinsonism, etc. should be classified under Category B-G (Neurology-General)

The Shoulders

The shoulders not only serve to position the hands for effective function, but serve in a major way in lifting and carrying activities. Because of the nature of the joint, lack of stability of the joint or excessive pain with certain movements may affect functional ability. Because of the nature of the joint, there may be adequate function with the extremity at the person's side, but great difficulty may be experienced in reaching up to work above the shoulder level. Some practitioners use a check sheet showing appropriate weights which can safely be lifted below the waist level, below the shoulder level and above the shoulder level, which may be attached to the employer's copy if this is more convenient than writing the details in the place shown for comments/suggestions on the Functional Ability Report Form.

The Elbows

The elbows are essential for lifting and carrying, in addition to their functions in positioning the hands. Injury at the elbow which involves the nerve supply to the hand will also require a hand profile.

The Wrists

The wrists may be limited by loss of range of motion, pain, or weakness as they affect lifting and carrying. The proper function of the hands depends upon adequate wrist function. In addition to a profile for wrist function, there may need to be a profile in terms of the effect on hand function, as in carpal tunnel disorders, which may have wrist pain and loss of hand strength.

Bilateral Loss of Function

Since bilateral loss of upper extremity function has more than an additive effect, this has been profiled separately under profile level 7. An estimate of remaining functional ability will make possible necessary job adaptation or accommodation. Profile Level 8 (Special Circumstances) may also be used in some situations.

#### Amputation/Immobilization

Loss of a portion of a limb will eliminate the function of all joints distal to the level of amputation, but depending upon the nature of the stump, it may have useful holding and carrying functions. The profile given should reflect the best functional ability possible with a prosthesis which can be used in the workplace. The same is true for a cast which immobilizes all or part of an extremity.

#### Adaptation to Impairment

For functional ability profiling purposes, the person should be evaluated using any sort of splint or other assistive device that may be used in the workplace. The nature of such a device should be indicated on the report form. With complete or partial loss of function of one extremity, the person should be evaluated on the basis of the good extremity alone or the good extremity assisted by the impaired one, even if only in a holding capacity.

As recovery from an injury takes place, the profile should be changed to reflect a greater functional ability and thus allow greater work flexibility.

#### Suggested Accommodations

If permitted to do so, many individuals will use great ingenuity in devising effective ways to accommodate to their impairment and this should be encouraged. Helpful suggestions may come from concerned supervisors, occupational therapists or other experts.

### A-U: MUSCULOSKELETAL-UPPER EXTREMITY\* (Except Hand)

PROFILE LEVEL	CIRCUMSTANCES	APPROPRIATE WORK ACTIVITY*	POSSIBLE ACCOMMODATIONS
1	No past limitation	All	None
2	Past limitation, fully recovered	All	None
3	Slight limitation of one upper extremity <sup>b</sup>	Infrequent heavy lifting/carrying/holding with affected extremity <sup>c</sup>	Use of lifting/carrying devices. Substitute other work methods.
4	Moderate limitation of one upper extremity <sup>b</sup>	Medium lifting/carrying/ holding with affected extremity <sup>c</sup>	
5	Marked limitation of one upper extremity	Light lifting/carrying/holding with affected extremity <sup>c</sup>	
6	Absence of use of one upper extremity (including amputation/immobilization)	No lifting/carrying/holding with affected extremity.	
7	Slight to severe limitation/absence of both upper extremities	No lifting/carrying/holding with both extremities, depending upon severity, as above.	Substitute methods to augment function. Use alternative methods, e.g., foot switch, use of voice or other activation devices
8	Special circumstances	Depending on specific problem	According to situation
9	Under evaluation	Depending on situation	Temporary adjustment; time for medical appointments
10	Health problem where work activity is inappropriate	None	Review if improved

- a. Apply to shoulder/elbow/wrist problems. See Category A-H for hand problems.
- b. All profiles should be based on level of function made possible by use of any splints or prosthetic devices which may be used in the workplace.
- c. In many shoulder problems, tasks should not require working with hands above the shoulder level.
- \* See Appendix III for work levels.

## CATEGORY A-H: MUSCULOSKELETAL-HAND

In addition to their general functions of lifting, carrying or holding, the hands represent an individual's principal means of carrying out a myriad of coordinated skilled activities essential to many jobs. For this reason, the hands are profiled separately from (or in addition to) the other parts of the upper extremities.

As in Category A-U (Musculoskeletal-Upper Extremity), functional ability may be limited by:

- (a) Anatomical absence of any portion of the hands
- (b) Limitation of the range of motion, either by ankylosis, joint disease or other limitations.
- (c) Weakness of muscles controlling movements.
- (d) Loss of feeling of all or part of the hands.
- (e) Pain, either at rest or on movement. This may be associated with increased sensitivity to temperature changes.

Limitations not explainable by the foregoing, such as writer's cramps, non-anatomic motor or sensory disturbances, or excessive pain complaints should be classified under Category L-P (Psychiatric/Psychologic/Emotional). Likewise, disturbances of hand function because of multiple sclerosis, Parkinsonism, etc. should be classified under Category B-G (Neurology-General).

### Profiling the Hands

The hands are used to accomplish a great variety of highly skilled acts in the workplace. Many tasks require the coordinated effort of both hands. Some may be accomplished with either hand. Other skills are selectively present in the dominant hand and impairment of this hand may have serious occupational impact. Only with time and training may similar skills be developed in the non-dominant hand.

The profile levels which follow are meant to reflect the residual functional ability of an "average" person with reference to an "average" work situation. For example, a worker with temporary loss of use of his dominant hand, as with a cast for a hand fracture, would be profiled on the basis of his ability to function with his non-dominant hand.

Because of the complexity of hand function, it is anticipated that Profile Level 8 for Special Circumstances will be used generously.

Profile Levels 3 thru 6 are meant to be used if one or both hands are involved, focusing on residual functional ability of hand function. Profile 7 is for severe involvement, with little or no residual hand function in either hand.

### Possible Accommodations

It is very difficult to anticipate the level of skills involved in tasks without an intimate understanding of the nature and pace of work required. Thus, the functional ability profile should be the starting point for appropriate work accommodation, using the ingenuity and skills of the worker, the supervisor and, where available, professional therapists or job counselors.

**CATEGORY A-H: MUSCULOSKELETAL-HAND a**

<b>PROFILE LEVEL</b>	<b>CIRCUMSTANCES</b>	<b>APPROPRIATE WORK ACTIVITY *b</b>	<b>SUGGESTED ACCOMMODATIONS</b>
1	No past limitation	All	None
2	Past limitation, fully recovered.	All	None
3	Mild hand impairment	All but very highly skilled tasks, especially in dominant hand	Substitute other work methods
4	Slight hand impairment	Slight limitation of skilled tasks or lifting/carrying by affected hand(s)	Use of lifting/carrying devices. Substitute other work methods.
5	Moderate hand impairment	Medium skill tasks and/or moderate lifting or carrying by affected hand(s)	Use of holding devices. Substitute one-handed methods. Modify computer functions for one-hand use. Use keyboards for loss of handwriting.
6	Severe hand impairment	Minimal skill tasks and/or light tasks by affected hand(s).	Substitute methods to augment functions. Use alternative methods, e.g., foot switch, use of voice or other activation devices.
7	Bilateral very severe hand impairment, including amputation and/or severe limitation of range of motion.	Limitation or substitution of hand activity, depending on severity	
8	Special circumstances	According to nature of problem	According to situation
9	Under evaluation	At discretion of health care provider	Temporary adjustment; time for medical appointments.
10	Health problem where work activity is inappropriate	None	Review if improved

\* See Appendix III for work levels.

a. See Category A-U for upper extremity problems other than the hands.

b. All profiles should be based on level of function made possible by use of any splints, prosthesis or other devices which may be used in the workplace.

## CATEGORY A-L: MUSCULOSKELETAL - LOWER EXTREMITY

Functional ability of the lower extremities may be limited by impairments of the hip, knee, ankles, feet or toes. Details of gait, ranges of motion, etc., are less important than a careful estimate of an individual's ability to stand, walk, climb, or do other skilled acts. A variety of factors enter into appraisal. These include pain, strength, range of motion, atrophy, ankylosis of joints, arthritis, amputations, abnormality of gait, swelling, edema or sympathetic changes.

Alterations of gait by neurologic conditions such as Parkinsonism or multiple sclerosis should be analyzed and profiled under Category B-G (Neurological Disorders - General).

If functional ability is enhanced by the use of appliances such as braces, splints, prosthetic or orthotic devices, the profile level should be set at the optimal level using these devices, provided they can be used throughout the workday.

Suggestions for accommodation would include limited lifting and carrying, limited amount of standing, limited work hours, increased rest periods, changing from a standing to a sitting work position, using lifting devices, substituting hand controls for foot operated equipment, etc.. Arrangement for parking adjacent to worksite may be suggested. Other special help in getting to and from the work site, lavatories, lunch rooms, etc, may be needed.

Careful thought should be given to the likelihood of increasing disability from any particular work activity. The ideal profile should strike a balance between encouraging the work activity and minimizing any risk of harm which may result.

Examples of clinical conditions and suggested accommodations appropriate to the various profile levels are shown below.

### Profile Level

1 & 2	Self explanatory
3	Mild sprains, strains or contusions not limiting overall performance.
4	Limiting the walking and standing for a patient with a more severe ankle or knee sprain who requires a brace or ace wrap.
5	Changing work tasks for a patient with a healing fracture or post-op knee surgery.
6	A post-amputation patient with a prosthesis who can sit for periods of time but has difficulty walking to worksites or standing for extended periods of time.
7	A patient rehabilitating after knee reconstruction who requires sedentary work with allowance for breaks to elevate the leg and a schedule allowing physical therapy.
8,9 & 10	Self explanatory

**CATEGORY A-L: MUSCULOSKELETAL-LOWER EXTREMITY**

<b>PROFILE LEVEL a</b>	<b>CIRCUMSTANCES a</b>	<b>APPROPRIATE WORK ACTIVITY b*</b>	<b>POSSIBLE ACCOMMODATIONS</b>
1	No past limitation	All	None
2	Past limitation, fully recovered	All	None
3	Minimal limitation	Heavy	None
4	Slight limitation	Medium	Use of assistive devices; minimize unnecessary walking and standing; change of tasks. Limit lifting and carrying.
5	Moderate limitation	Light	
6	Severe limitation	Sedentary	Limit distance from vehicle to work site; special equipment
7	Severe limitation with decreased stamina	Sedentary with limitations	Special equipment; limited hours; special schedules; rest periods
8	Special circumstance	Depending on specific problem	According to situation.
9	Under evaluation	Depending on situation	Temporary adjustment
10	Health problem where work activity is inappropriate	None	Review if improved

- a. Profiles to be based on function with use of appropriate orthotic devices.
- \* See Appendix III for levels of work definition.
- b. Appropriate work activity will minimize risk of increasing impairment.

## CATEGORY A-S: MUSCULOSKELETAL-SPINE

Symptoms related to the spine are among the most common of adults' everyday complaints and are not limited to the workplace. In most instances, individuals appear to accept or tolerate the symptoms as being an expected part of life, especially as they become older. However, when the spine is injured or in case of more severe symptoms from causes, there may be clear indication for adjustments in work expectations.

This should include not only concern for the worker's comfort and efficiency but for possible effects of work activities in causing increased pathology. While details of history, examination and special tests are essential for correct diagnosis, clinical experience and common sense must be applied in estimating a person's functional ability in the workplace.

The spine is divided into three segments: cervical, thoracic and lumbosacral. Each of the segments share in general limits on weight bearing, lifting, carrying, bending, reaching and standing. Problems involving the pelvis should be handled as related to the lumbosacral spine or as a special situation, depending on the circumstance. Hip problems are considered under Category A-L (Musculoskeletal - Lower Extremity).

Fractures of any segment of the spine or spinal surgery will usually require a variable amount of time off work, followed by a return to work with limitations of lifting and carrying even if protected by a brace or cast.

Soft tissue lesions, on the other hand, usually reach a point of stabilization with a period of a few weeks so as to permit a return to work with appropriate accommodations. As further healing takes place, the profile may be up-graded to permit more demanding work, bearing in mind the balance between the desire to return to a previous job versus the risk of aggravating the condition. Some degree of discomfort should be expected on return to work, even with appropriate accommodation. Chronic pain that appears to be beyond what might be expected from the discerned pathology should be considered for its emotional overtones and may be profiled under category L-P (Psychiatric/Psychological/Emotional) if appropriate.

If spinal injury results in significant damage to the spinal cord, causing partial or complete paraplegia, this later condition should also be profiled under Category B-G (General Neurology). If radiculopathy results, the effect on function of the limbs may be profiled under Category A-U (Musculoskeletal - Upper) or Category A-L (Musculoskeletal - Lower) or both. If the cauda equina is damaged, bladder symptoms may be profiled under Category I-G (Genitourinary) and bowel symptoms under Category H (Gastroenterology).

Examples of suggested profile levels:

- (1) A 22-year-old with symptoms of neck and shoulder pain. Clinical findings normal, with full range of motion. X-rays normal. Profile: 3
- (2) A 30-year-old male developed low back pain when a heavy load he was helping to carry shifted. Exam and x-rays negative. Symptoms cleared in 3 weeks. Profile: 4.
- (3) A 55-year-old female with long history of treatment of back pain, with leg radiation. Decreased range of motion. X-rays: moderate spondylolysis and disc herniation at L4/5. Profile: 5.
- (4) A 40-year-old obese male with gradual onset of mid-back pain after long hours of heavy lifting. Extensive degenerative changes in lumbar spine. Profile: 4.

**CATEGORY A-S: MUSCULOSKELETAL-SPINE**

<b>PROFILE LEVEL</b>	<b>CIRCUMSTANCES <sup>a</sup></b>	<b>APPROPRIATE WORK ACTIVITY <sup>*</sup></b>	<b>POSSIBLE ACCOMMODATIONS</b>
1	No past limitation	All	None
2	Past limitation fully recovered	All	None
3	Mild limitation of function, but with little likelihood of aggravation.	Heavy	None
4	Slight limitation of function and/or with slight risk of aggravation.	Medium	Use of assistive devices, minimize standing, limitation of lifting, bending, stooping, carrying, etc. Change in height of work surfaces.
5	Moderate limitation of function and/or moderate risk of aggravation.	Light	
6	Severe limitation of function and/or marked risk of aggravation.	Sedentary	Special equipment. Limit distance from vehicle to work site.
7	Very severe limitation of activities with pain and decreased stamina.	Sedentary, with limitations	Special equipment, limited hours, special schedules, rest periods, etc.
8	Special circumstances	Depending on specific problem	According to situation
9	Under evaluation	Depending on situation	Temporary adjustment
10	Health problem where work activity is inappropriate	None	Review if improved

- a. Profiles to be based on function with use of appropriate braces, etc.  
 \* See Appendix III for definitions of levels of work.



## CATEGORY B-G: NEUROLOGY-GENERAL

Typical general neurologic problems that might be encountered include strokes, injuries to the head, neck, back or extremities, cerebral palsy, multiple sclerosis, Parkinson's disease, progressive neuromuscular diseases, and acquired disorders of the brain and spinal cord, including trauma. In evaluating functional ability in individuals with neurologic disorders, emphasis should be placed upon abilities to perform work actions, rather than the degree of disability.

### Functional Ability Assessment

Assessment of functional abilities may be considered under the following headings:

**Head or cranial nerve functions:** These include vision, hearing, smell, taste, speech, facial movements and sensation. Visual loss should be profiled under Category F (Ophthalmology). Intermittent balance disturbance (Menieres) will be appropriate to Category G (Otolaryngology), or under Category B-E, if episodic.

**Coordination and balance:** This includes an assessment of ambulation (with or without aids); ability to use the extremities in skilled manual and other activities (unless part of a general neurologic condition). (Hand function may be profiled under Category A-H: Musculoskeletal Hand).

**Muscle tone or involuntary movements:** This includes the resistance to passive movement and/or the presence of involuntary movements, such as spasms or jerks. Increases or decreases in muscle tone may impact job performance. Examples include patients with Parkinson's disease, dystonia, or spasticity.

**Muscle weakness:** Muscle strength may be graded as normal (5), detectable weakness (4), movement with gravity eliminated (3), visible contraction (2), and no visible contraction (1). Localized muscle weakness may also be profiled under the Musculoskeletal categories.

**Excessive fatigue:** This is inability to repetitively perform a motor function and it may significantly impact job performance. Fatigue or a pattern of fatigue may be severe enough to result in cessation of physical activity. This may occur in patients with neuromuscular disease (myasthenia gravis, etc.) or other disorders such as multiple sclerosis.

**Sensation:** This may be impaired over the body or limbs and may have an impact on job performance. If loss is evident only in a portion of the body, it may be incorporated into one of the musculoskeletal categories (A-U, A-H, A-L or A-S).

**Mental status:** This should be evaluated as part of a neurologic survey according to the following functions: (1) communication; (2) cognition; (3) memory; and (4) affect. If significant impairment is noted, it should be profiled under Category L-M (Learning, Memory and Communication) or Category L-P (Psychiatric/Psychological/Emotional), in addition to the general neurologic profile (B-G).

**Autonomic function:** This may involve temperature sensitivity, with intolerance to heat or cold producing weakness, sensory loss or pain. Bowel and bladder control must be sufficient to allow the individual to remain in the workplace and may be profiled under Category H (Gastroenterology) or Category I-G (Genitourinary). Episodic blood pressure changes may be profiled under Category B-E (Epilepsy/Episodic Disorders).

### Rating Functional Ability and Accommodation in the Workplace

Combinations of cranial, coordination, motor, sensory, mental or autonomic deficits may limit work performance, while any single deficit may be insufficient to limit performance. Examples of impairment and related suggestions for accommodations are as follows:

- Level 3. Minimal signs: Early Parkinsonism, with head tremor but no loss of motor function.
- Level 4. Slight impairment: Slight decrease in strength, coordination, or stamina. Example: Need to sit for brief periods, avoid heavy lifting, decrease pace, etc.
- Level 5. Moderate impairment: Moderate decrease in strength, coordination, or stamina. Example: Mild to moderate hemiparesis, mild incoordination of one limb, etc. requiring light duty and decreased pace.
- Level 6. Severe impairment or loss of function but work may be carried out either without the designated function or by work place modification. Example: Paralysis of legs may be accommodated by sedentary work. In hemiparesis, a foot control may substitute for a hand control.

Level 7. Very severe impairment: Loss of function essential for usual work. Adaptation may require use of other parts of the body.

Level 8. Special circumstances: Specific limitations of functions should be considered, including ability to walk (how far and how often), stand or ability to sit, use extremities, particularly the hands, and unusual demands on the special senses.

**Stability of Neurological Impairment:**

Neurologic disorders and/or disabilities may improve, fluctuate or worsen over time. Workers with mild to moderate residuals of stroke or with multiple sclerosis may have fluctuating or relatively stable functional abilities. Some may experience slow decline and require periodic re-evaluation at intervals of 3-6 months.

**Suggested Accommodations**

Physical changes in the workplace such as provision for sitting, or moving the worker closer to toilet facilities and places that he visits frequently.

Reducing physical requirements of the job, such as the amount of time spent standing and distance required to walk; eliminating climbing, squatting or bending.

Provisions for eliminating sensorimotor tasks, such as responding to light signals, reading computer screens, taking instructions over the telephone, reading gauges or taking measurements.

Redefinition of the job when specific impairments limit or prevent performance of specific tasks.

**CATEGORY B-G: NEUROLOGY - GENERAL**

PROFILE LEVEL	CIRCUMSTANCES	APPROPRIATE WORK ACTIVITY *	POSSIBLE ACCOMMODATIONS
1	No past limitation	All	None
2	Past limitation, fully recovered.	All	None
3	Minimal signs or subjective symptoms without need for limitation of activity.	All	None
4	Slight impairment: slight decrease in strength, coordination, stamina, or other function.	Medium lifting or decreased pace.	Lifting devices, change of task; increased rest periods; change hours.
5	Moderate impairment: moderate decrease in strength, coordination, stamina, or other function.	Light duty; decreased pace.	Increased rest period; use of assistive devices; limit hours; change tasks.
6	Severe impairment: loss of function essential to usual work.	Tasks adapted to limitation; may be sedentary.	Sedentary, shifting location of work, limit walking, etc.; increased rest; limit hours.
7	Very severe impairment: loss of function essential to usual work.	Sedentary or tasks using other parts of body.	Major readjustment or reassign to other work.
8	Special circumstances	Depending on specific problem.	According to situation.
9	Under evaluation.	Depending on situation.	Temporary adjustment.
10	Health problem where work activity is inappropriate.	None	Review if improved.

\* See Appendix III for levels of work.

## CATEGORY B-E: EPILEPSY AND OTHER EPISODIC CONDITIONS

Epilepsy includes any recurrent loss of consciousness or conscious control arising from intermittent change in brain function. Other episodic conditions are those which may affect level of consciousness or control to the point that the individual is not aware of or in control of his or her actions, e.g., syncope of cardiovascular origin, cataplexy, narcolepsy, metabolic changes, medication induced changes, episodic vertigo, cerebrovascular insufficiency, sleep disorders causing drowsiness, etc.

It is not possible to anticipate all possible job descriptions and delineate restrictions, but the foregoing considerations and profile levels may be used as general guidelines to be applied with reason and common sense. Free communication including the employer, the employee, and health care provider is encouraged.

The major concerns regarding epilepsy and related disorders in the workplace are: (a) operation or being in close proximity to potentially dangerous equipment; (b) working in high places; (c) working with or around potentially dangerous materials, e.g. chemicals, explosives, toxins, etc.; and (d) working in situations where the mental state and alertness of the patient might have a direct effect on the safety of another worker. Each case requiring workplace restrictions must be judged individually by the physician with appropriate restrictions applied for an appropriate duration with regular follow-up evaluation and update of the profile classification.

Anticipated workplace risks from seizures or other episodic disorders may be defined as follows:

- High risk: Risk level comparable to that faced by workers such as airline pilots or interstate truck drivers; or where special laws or rules prevail.
- Moderately high risk: Risk level comparable to that faced by workers such as those who operate heavy trucks, cranes or lifts, handle hazardous material, or do above-ground construction or work where major damage to plant or expensive equipment may occur, etc.
- Slight risk: Risk level comparable to that faced by workers such as those who operate light trucks, private vehicles and machines with moving parts, do infrequent work above ground level, and rarely use toxic chemicals, etc
- Slight risk: Risk level similar to above, but limitations may apply, such as time of day, frequency of activity, etc.
- Limited risk: Risk level faced by workers such as those who use potentially risky equipment (e.g., nail guns) and most machines, and work at ground level or on a platform 3-4 feet above another level (as in loading docks or truck bed), etc.
- Risk only to self: Risk level faced by individuals such as those who work at ground level or a platform, as above, or who do ordinary walking, unless in unusual work-related traffic situations or on difficult terrain, etc.

It is not expected that a worker with seizures or other episodic disorders should be protected in the workplace by restrictions on activities which he normally undertakes away from the workplace. For example, a person might be expected to stand and walk about in the course of work activities, provided there is no excess of risk to others or to property. In other words, if a person is injured in a simple fall because of a seizure at work, this should not be construed as the employer's responsibility, as it may as well have happened at home or going to or from work.

When a person is required to drive either a private or commercial vehicle, the criteria used in issuing a valid state driver's license will prevail. If a person operates a vehicle or other equipment not technically requiring a license, if the risks are similar, similar limitations would prevail.

Getting to and from the worksite is traditionally considered the worker's responsibility, but an employer may offer help by facilitating car pools, etc.

Persons experiencing seizures or other episodic conditions may have associated problems which may affect work safety and these should be reported under the appropriate profiles.

The Special Circumstances category (Profile Level 8) may be used by the health care professional based on the professional's evaluation of the situation. Such circumstances may include the following as examples.

- a. Seizures or episodes occurring only during sleep, over a period of three or more years.
- b. Seizures or episodes so limited as not to interfere with control, if stable for a period of one year.
- c. Seizures or episodes recurring when medication has been reduced on a health care professional's advice to change or discontinue medication and a corrective change has been made as recommended by the health care professional.
- d. A seizure or episode provoked by a clearly identified cause which is not likely to recur.
- e. Situations where the level of medications is such as to cause drowsiness or impaired coordination, etc. Since this would not be expected to continue indefinitely, a temporary limitation to sedentary or ground-level work, etc., may be appropriate.

Permitted exceptions may include use of various hand-held tools, smaller power operated equipment, small vehicles, nontoxic or nondangerous chemicals which do not present significant risk to patient, other workers, workplace equipment or surroundings.

#### CATEGORY B-E: EPILEPSY AND OTHER EPISODIC DISORDERS

PROFILE LEVEL	CIRCUMSTANCES	APPROPRIATE WORK ACTIVITIES *#	POSSIBLE ACCOMMODATION
1	No history of seizures/episodes, past or present.	All	None
2	History of seizures/episodes- none for 5 years while off medication	High risk tasks	None
3	Seizure/episode free for 3 years - on or off medication	Moderately high risk	Preference for regular schedules; avoidance of excessively long hours, missing meals or medications. Access to medical follow-up. Encouragement to avoid use of alcohol, stimulants or other drugs.
4	Seizure/episode free for 1 year - on or off medication*	Moderate risk tasks	
5	Seizure/episode free for 6 months - on or off medication*	Slight risk tasks	
6	Seizure/episode free for 3 months - on or off medication*	Slight risk with special limitations	
7	Seizure/episode free for less than 3 months - on or off medication*	Sedentary or ground level; hand-held tools with permitted exceptions	
8	Special circumstances	Sedentary or ground level, or at discretion of health care provider	According to situation
9	Under evaluation	Depending on situation	Temporary adjustment; time for medical appointments
10	Health problem where work activity is inappropriate	None	Review if improved

\* Provided there is a history of faithful, regular use of medications which are satisfactorily being tolerated without significant side effects.

# See narrative for definitions of risk levels.

### CATEGORY C: PULMONARY

Symptoms associated with pulmonary disorders include dyspnea (shortness of breath), cough, sputum production, hemoptysis (bloody sputum), wheezing, chest pain and night sweats.

A careful history and physical examination will usually suffice for an initial functional ability profile. More sophisticated laboratory information should be used for more extended limitation. Pulmonary disorders are divided into two broad groups:

- (1) Relatively fixed disorders such as emphysema, pulmonary fibrosis, etc., which may be quantified by standard tests.
- (2) Reversible or relapsing disorders, including asthma, which may produce isolated, intermittent attacks as well as chronic impairment.

#### RELATIVELY FIXED PULMONARY DISORDERS (METHOD I)

Dyspnea is the most common presenting symptom which affects work ability. The following is based on American Thoracic Society and AMA standards.

SEVERITY OF DYSPNEA	DEFINITION	OBJECTIVE MEASUREMENTS			
		FVC and/or FEV <sub>1</sub>	Diffusion Capacity	V <sub>O</sub> MAX (ml./Kg./min)	METS
None	No limitation	FVC and FEV <sub>1</sub> ≥80%	≥70%	>25	>7.1
Mild	Walk, more slowly than others of same age	FVC or FEV <sub>1</sub> 60-79%	60-69%	20-25	5.7-7.1
Moderate	Stop for breath, walking at own pace on level	FVC 51-59% or FEV <sub>1</sub> 41-59%	41-59%	15-20	4.3-5.7
Severe	Stop for breath walking 100 yards or for a few minutes on the level	FVC ≤ 50% or FEV <sub>1</sub> ≤ 40%	<40%	<15	<4.3
Very Severe	Too breathless to leave house or after dressing (without O <sub>2</sub> )	Less than above; variable with oxygen.			

#### REVERSIBLE OR RELAPSING DISORDERS (ASTHMA) (METHOD II)

This group includes asthma and other reversible pulmonary diseases as well as those with associated chronic relatively stable lung impairment. Those with only intermittent asthmatic attacks, with good pulmonary function between them, may be profiled according to the extent to which the severity and frequency of attacks interfere with ability to work. Especially when the level of work activity seems related to the attacks, they may be profiled as indicated on the profile charts. If all attacks occur exclusively in a non-work setting, no workplace limitation is indicated. If they have significant persisting dyspnea between attacks, they may be profiled according to the criteria for relatively fixed pulmonary disorders as above, but for many cases, the seriousness of the problem may be evaluated by scoring according to the following table. (American Thoracic Society guidelines). Because of the variable nature of the problem, frequent use of Level 8 (Special Circumstance) may be wise. It is imperative that allergens in the workplace be avoided when identified.

FEV <sub>1</sub> - Prebronchodilator - % of predicted	Reversibility of FEV <sub>1</sub> or degree of airway hyper-responsiveness PC mg/ml* FEV <sub>1</sub>	Minimum Medication Need	Severity Score
>lower limit of normal	<10% or >8	None	0
70% - lower limit	10-19% or 8->0.5	<Daily bronchodilator &/or cromolyn	1
60-69%	20-29% or 0.5->0.125	Daily bronchodilator &/or low dose inhaled steroid#	2
50-59%	≥ 30% or ≥ 0.125	Bronchodilator & on daily steroid <sup>x</sup>	3
<50%	.	Bronchodilator on demand and daily inhaled & systemic steroid	4

\* Provocative concentration of methacholine (or histamine) which results in a 20% decline from baseline of the FEV<sub>1</sub>

# <800 ug beclomethasone or equivalent.

x >800 ug beclomethasone or occasional (1-3 times a year) systemic steroid.

Instruction; Add severity scores for each column for score to use with profile chart.

Special circumstances which do not fit into the above protocol should be profiled as Level 8. These include:

Persons with contagious infections such as tuberculosis. They should not be allowed to continue working until proper precautions can be taken to avoid the spread of the disease.

Pneumoconiosis. No employment which might add to the dust burden in the lung and cause progression.

Hypersensitivity pneumonitis. No further exposures to the offending antigen.

Bullous disease or any condition predisposing to barotrauma. No exposures to marked changes in atmospheric pressure such as in diving or in non-pressurized aircraft.

Sleep disordered breathing. Until this can be corrected by therapy, the person would not be allowed to perform work which will endanger him/herself or others. (See Category B-E) Epilepsy and Other Episodic Disorders.

Lung cancer. These individuals may be profiled according to standards in Category E (Hematology/Immunology/Oncology) and also the standards in the pulmonary category, depending on residual pulmonary capacity.

#### CATEGORY C: PULMONARY DISORDERS

PROFILE LEVEL	CIRCUMSTANCES		APPROPRIATE WORK ACTIVITY	POSSIBLE ACCOMMODATIONS	
	Fixed Method I <sup>a</sup>	REVERSIBLE (INTERMITTENT) Method II <sup>a</sup>		Fixed (I)	REVERSIBLE (INTERMITTENT) (II)
1	No past limitation		All	None	
2	Past limitation, fully recovered		All	None	
3	Mild dyspnea	Mild asthma infrequent (Score < 6)	All but heavy, sustained work <sup>b</sup>	Avoidance of cold air, dust and fumes; use of mechanical assisting devices for heavier work	Avoidance of all substances known to provoke an attack or transfer.
4	Moderate dyspnea	Moderate asthma with reduced stamina (score 7-9)	Medium <sup>b</sup>		
5	Moderate dyspnea with reduced stamina	Moderate asthma with reduced stamina (score 10-11)	Light or intermittent <sup>b</sup>		
6	Severe dyspnea without oxygen	Severe asthma (Score > 12)	Sedentary without oxygen or intermittent work <sup>b</sup>	May need supplemental mechanical devices, wheelchair, etc.	
7	Very severe dyspnea requiring O <sub>2</sub>	Severe asthma & reduced stamina (Score >12)	Sedentary with oxygen or intermittent work <sup>b</sup>	As above; avoid flames or sparks	
8	Special circumstance		Depending on specific problem	According to situation	
9	Under evaluation		Depending on situation	Temporary adjustment	
10	Health problem where work activity is inappropriate		None	Review if improved	

a See narrative. Add severity scores for each column for score to use with profile chart.

b See Appendix III for levels of work.

## CATEGORY D: CARDIOVASCULAR

Cardiovascular disorders may affect functional ability in the workplace through a variety of mechanisms. These may involve the heart itself, its valves, its muscles, its intrinsic vessels, its conducting and regulating mechanisms or its linings and coverings as well as the peripheral vessels supplied by it. These disorders fall into the three groups shown below. A provisional profile level may be determined by means of a careful history and clinical examination, but additional tests, such as stress EKGs or treadmill tests, are useful, if available. (See Appendix III for work levels).

### Disorders with Relatively Stable Cardiac Function

Coronary heart disease (CHD) is most commonly due to arteriosclerosis of the coronary arteries. Impairment results from activity-limiting angina pectoris and/or reduced ventricular function. Chest pain should not be classified as angina pectoris without an objective measurement of myocardial ischemia. Myocardial damage may also cause cardiac arrhythmias.

A person should not return to work immediately after an infarction, but most are ready to resume sedentary work in 6 weeks and light duty in 3 months, with subsequent profiles depending upon the individual case. Participation in a cardiac rehabilitation program is likely to facilitate return to work.

Valvular heart disease may be caused by congenital, rheumatic, infectious, or traumatic factors, or a combination of them. Impairment results from decreased cardiac output and may be reduced, but not fully reversed, by catheter-based interventional procedures, operative repair, or replacement of the valve with a prosthetic device.

Other disorders affecting heart function, such as other types of myopathy, constrictive pericarditis, etc., may be profiled using similar guidelines.

### Disorders of Rhythm and Conduction

A dysrhythmia is defined as one or more heart beats generated at a site other than the sinus node. A conduction abnormality is defined either as an impulse that is generated in the sinus node, but not transmitted normally through the conducting system or an abnormality in impulse initiated in the sinus node. Both abnormalities may occur in patients with structurally and functionally normal hearts or in patients with any type of organic heart disease. They may cause syncope, weakness and fatigue, palpitations, dizziness, light-headedness, chest heaviness, or shortness of breath and sudden cardiac death. The severity of associated symptoms varies widely.

Careful evaluation should provide objective documentation that symptoms are correlated with the dysrhythmia or conduction abnormality. The functional profile should be modified as the effect of medication and/or mechanical intervention are observed. If a dysrhythmia causes recurring loss of consciousness or control, guidance for profiling and appropriate work restrictions will be found under Category B-E (Epilepsy and Other Episodic Disorders).

### Hypertensive Cardiovascular Disorders

Sustained elevation of blood pressure may lead to damage of arterial walls and damage of the organs supplied by these vessels, especially the brain and the kidneys. Several determinations of blood pressure should be made. If a secondary cause of hypertension (e.g., coarctation of the aorta, renal artery stenosis, renal parenchymal disease, hyperaldosteronism, Cushing's disease, pheochromocytoma or chronic nocturnal hypoxia resulting from sleep apnea syndromes) is identified, these should be treated and an evaluation of functional ability should be based on residual problems. Antihypertensive medications can maintain blood pressure within the normal range in most patients without correctable causes of hypertension. Essential hypertension is expected to plateau with little likelihood of significant future change once the blood pressure has come under control with medication and a less limiting functional ability profile is appropriate.

Other Considerations

Recovery time after coronary artery bypass surgery varies, but in the vast majority of cases, there is successful revascularization and individuals may return to work in 6 to 8 weeks. These or other unusual patients may be handled at Level 8 (Special circumstances) initially, before moving to more demanding levels.

In all of the above conditions, response to medications and/or other interventions will fluctuate with time, so that a change in profile may be made from time to time to reflect the functional ability of the heart.

If pulmonary hypertension develops, an additional profile under Category C (Pulmonary Disorders) may be appropriate. If a person has a stroke, the person should also be profiled under Category B-G (General Neurology). If there is significant renal impairment, the person may be considered under Category M-M (General Medical Disorders).

**CATEGORY D: CARDIOVASCULAR**

PROFILE LEVEL	CARDIAC FUNCTION (Infarction, Angina, etc.)	ARRHYTHMIAS CONDUCTION DEFECTS	HYPERTENSION	APPROPRIATE WORK ACTIVITY *	POSSIBLE ACCOMMODATIONS
1	No past or current limitations			All	None
2	Past limitation, fully recovered.			All	None
3	Minimal heart disease without limited function, under medical management	Previous abnormality under full control with medication	Hypertension with BP <140/90 on medications, without complications.	Heavy	Avoid excessive hours.
4	Mild heart disease without limited function, but with increased risk of recurrence, under medical management.	Infrequent episodes, without risk to self or others.	Hypertension with history of stroke or definite hypertensive changes in retina.	Medium	Utilize lifting and carrying devices; Modify duties.
5	Heart disease with moderate symptoms, under medical management	Moderately frequent episodes without risk to self or others.	Hypertension, with diastolic BP usually >120 mm Hg and/or complications noted above without congestive failure.	Light	
6	Severe heart disease with marked symptoms despite medical management	Recurring episodes with risk to self or others, as from falling.#	Hypertension as above and/or history of congestive heart failure with persisting symptoms.	Sedentary	Minimize walking to work site. Limit physical exertion. Consider limiting hours.
7	Heart disease where work disruption may cause risk to others#			Tasks not involving risk to others	Consider change of duties or transfer.
8	Special circumstances			According to problem	According to situation
9	Under evaluation			Depends on situation	Temporary adjustments
10	Severe impairment where work activity is inappropriate		Malignant hypertension	None	Review if improved

\* See Appendix III for work levels.

# See Category B-E (Epilepsy and Other Episodic Disorders)



## CATEGORY E: HEMATOLOGY, IMMUNOLOGY AND ONCOLOGY

The hematopoietic system has several components. The red cells are involved with oxygen transport. White blood cells are critical to the immune system. Platelets are involved in coagulation of the blood; in conjunction with other important proteins related to clotting, they ensure appropriate blood clotting.

Functional impairment related to anemia can generally be corrected or ameliorated significantly with transfusion. In certain chronic disorders such as sickle cell anemia, chronic hemolytic anemias, or myelodysplastic disorders, corrective therapy is not available and chronic transfusions are impractical or of limited value. In these cases, impairment is dependent upon the ability of the cardiovascular system to compensate for the anemia. Anemia and associated problems include these problems as well as abnormal bleeding, etc., with varying degrees of loss of stamina. Medical assessment should include measurement of the hemoglobin level, cardiovascular reserve, and transfusion requirements. Individuals with anemia requiring transfusions may be profiled at approximately the following levels, depending upon how well they respond to being transfused. Level 5 requires  $\leq$ two transfusions per year; Level 6 requires  $\leq$  three transfusion per year; and Level 7 requires up to five transfusions per year.

Functional impairment of the coagulation system can occur in platelet disorders or with impairment in the production or function of critical clotting proteins. Impairment is generally limited to musculoskeletal deformities that occur as a result of recurrent bleeding and can be assessed under that profile.

Functional impairment related to abnormalities of white blood cells or the immune system can result in increased susceptibility to frequent or life threatening infections. Medical appraisal should address signs or symptoms of the underlying disease, ability to perform activities of daily living, and frequency of therapeutic intervention. With HIV infection, existing cognitive impairment should be assessed under that profile.

Functional impairment in oncology includes disabilities occurring as a result of the involved organ system and should be assessed under that profile. Medical assessment should include consideration of signs or symptoms that occur as a result of the tumor itself or as a result of therapy, frequency of therapeutic intervention, and ability to perform activities of daily living.

For clarification of the various work levels shown as "Appropriate Work Activity" reference is made to Appendix III.

The suggested possible accommodations listed are general in nature and should be adapted to an individual case as indicated on the Report Form, and may include limited hours, special schedules for work early in the day, time off for day-time treatments, intermittent rest periods, or even work in the home, provided the essential functions of a job may be accomplished. Since a person's status may fluctuate, a time for profile review should be indicated on the report form.

**CATEGORY E: HEMATOLOGY, IMMUNOLOGY AND ONCOLOGY**

CATEGORY	ANEMIA/ASSOCIATED PROBLEMS	IMMUNE SYSTEM & CANCER	APPROPRIATE WORK ACTIVITY *	POSSIBLE ACCOMMODATION
1	No past or current limitation	No past limitations	All	None
2	Past limitations, fully recovered	Past limitations, fully recovered	All	None
3	Minimal anemia; no limitations of physical activity	Asymptomatic disease; no treatment needed	Heavy	None
4	Mild anemia, etc., with discomfort associated with marked exertion	Minimal symptoms; infrequent treatment needed	Medium	Use of lifting/carrying devices; modifying work requirements
5	Moderate anemia, etc. with symptoms on moderate exertion	Minimal symptoms; periodic treatment required	Light	
6	Moderate anemia with symptoms on light exertion or with decreased stamina	Moderately symptomatic; frequent treatment required	Sedentary or limited standing	Limiting physical exertion, special rest periods or hours of work.
7	Severe anemia with decreased stamina	Moderately symptomatic; continuous treatment required	Sedentary or other limited duties	Use of special workbench or tools, limited hours, special rest periods
8	Special circumstances	Symptomatic disease; special circumstances	Depending on specific problem	According to situation
9	Under evaluation		Depending on situation	Temporary adjustment
10	Severe anemia; requires > five transfusions/year	Unable to carry out normal ADLs	Unable to work	Review if improved

\* See Appendix III for levels of work.

## CATEGORY F: OPHTHALMOLOGY

The visual system may be involved in four principle ways:

- (1) Loss of central acuity
- (2) Loss of visual fields
- (3) Change in ocular motility
- (4) Infection or inflammation of the eye and related structures.

Of these, the most commonly seen in terms of functional ability in the workplace is loss of central acuity, which is readily determined with regular eye charts. Except in rare cases where corrective lenses or contact lenses cannot be used on the job, the best corrected vision should be used in profiling.

Chronic monocular loss of vision, including blindness in one eye is not usually a handicap in the workplace except for tasks with unusual visual requirements such as interstate truck driving. However, acute loss of central or peripheral vision should be profiled more cautiously until accommodation to the problem has been accomplished.

Peripheral visual field loss may be critical in certain jobs, but in most cases some constriction does not compromise job effectiveness provided there is adequate central acuity. However, if work includes use of vehicles or moving equipment, the same standards as are applied to Utah drivers should be used. If fields are at least 120 degrees total for one or both eyes together risks comparable to driving light vehicles are acceptable. If total fields for both eyes are between 90 degrees and 120 degrees, limitation should be set according to requirements of the job. Individuals with less than 90 degrees total fields should not be assigned to work around moving vehicles or operate large moving equipment. With less than 20 degrees total fields, a person is considered severely impaired but able to do many types of tasks, with appropriate accommodation.

If sophisticated equipment is not available, visual fields may be estimated by careful confrontation testing.

Except in special conditions of operating commercial vehicles, problems of diplopia may be overcome by use of obscuration devices for most on-job functions.

Conjunctivitis or keratitis related to allergens or irritants in the workplace may prevent an individual from continuing to work in a place where the allergens/irritants cannot be eliminated.

Acute viral conjunctivitis is contagious and the person should not work in situations where others may be exposed until after recovery. The patient may be profiled at Level 8 (Special Consideration) or under Category MM (General Medical) if the contagious aspects are a major concern.

Other eye conditions such as significant disfigurement may also be identified at Level 8 (Special Considerations) and appropriate recommendations should be made.

If the eye problems are associated with other general or neurologic conditions, they should be profiled according to those categories in addition to the visual one.

Suggested accommodations include: encouragement of car pools for workers without driver licenses; job assignments to avoid hazards; use of bells or other signals; assignment to tasks which may be done using non-visual clues or methods such as answering phones, use of low-vision devices such as magnifiers, closed circuit television, etc.

**CATEGORY F: OPHTHALMOLOGY**

PROFILE	CIRCUMSTANCES	APPROPRIATE WORK ACTIVITY*	POSSIBLE ACCOMMODATIONS
1	No past limitation (corrected acuity 20/40 each eye; full visual fields)	All	None
2	Past limitation, fully recovered (same as above)	All	None
3	Slight loss of vision in better eye: 20/40 to 20/80	All except commercial driving or equivalent risk	Regular use of appropriate corrective lenses
4	Moderate loss of vision in better eye: 20/100 to 20/200	All except those with undue personal risk from heavy moving equipment or power tools	Use of low vision aids, signals, etc
5	Severe loss of vision in better eye - between 20/200 & 20/400	Activity generally limited to desk or work bench	Use of low vision aids, audible signal devices
6	Loss of useful vision - less than 20/400 in both eyes	Tasks using sound signals telephone, etc	Use of other means of communication, voice, signals, etc. Encourage car pools & escorts
7	Conjunctivitis or keratitis related to allergens or irritants in the workplace	All but tasks related to specific allergens or irritants	Use of eye protection & improved ventilation. Consider re-assignment.
8	Special circumstances	Depending on specific problem	According to situation
9	Under evaluation	Depending on situation	Temporary adjustments
10	Health problem where work activity is inappropriate	None	Review if improved

\* All profiles based on use of corrective lenses if indicated.

## CATEGORY G: OTOLARYNGOLOGY (ENT)

This category concerns those problems which involve the structures around the nose, mouth, and throat and closely-related structures, including the sinuses and ears (hearing and balance, and the voice box). Some of those difficulties are better profiled under other categories as noted below.

The most common problem affecting workers is impairment of hearing, which may be measured accurately by devices in common use for pure tone measurement.

Except in unusual circumstances, it is to be presumed that any person with only a unilateral hearing loss is able to accomplish the essential functions of the job assigned.

If one has a bilateral hearing loss, one's functional ability is limited by one's ability to communicate, to be communicated with, or by safety factors, with loss of functional ability as indicated on the profile.

Olfaction (smell) and taste disorders may reduce functional ability in special circumstances only, e.g., those who rely upon their taste or smell in their professions (cooks, perfume manufacturers, wine tasters, etc.). In these cases, if the problem does not respond to treatment, the only solution would be to reassign these individuals to other job categories.

Disturbances of equilibrium may be either persistent or episodic. The former may affect gait and station in a way similar to generalized neurologic disorders and may best be profiled under Category B-G (General Neurologic). There may be significant paroxysmal disturbance, as in Meniere's disease, where workers may be episodically incapacitated but function normally in between attacks, and may best be profiled according to Category B-E (Epilepsy and Other Episodic Disorders).

Defects of the upper air passages may cause impairment in the workplace. Most commonly encountered are various degrees of obstruction, which cause dyspnea, which may be profiled under Category C (Pulmonary Disorders).

E.N.T. disease may cause problems of chewing and swallowing that affect a person's state of nutrition. If this occurs sufficiently to affect functional ability in the workplace, the person may be appropriately profiled under Category H (Gastroenterology).

Speech impairment, either from disturbance of primary speech organs or from early complete deafness, may be profiled either under Profile Level 8 (Special Circumstances); or under Category B-G (General Neurologic). The latter should be used if the speech impairment is accompanied by neurologic problems.

Under most circumstances, facial disfigurement will not cause functional impairment, but in unusual situations, it may be profiled under Level 8 (Special Circumstances).

**CATEGORY G: OTOLARYNGOLOGY**

<b>PROFILE LEVEL</b>	<b>CIRCUMSTANCES</b>	<b>APPROPRIATE WORK ACTIVITY</b>	<b>POSSIBLE ACCOMMODATIONS</b>
1	No past limitation	All	None
2	Past limitation, fully recovered	All	None
3	Slight hearing loss (25-40 dB)*	All but tasks requiring special hearing skills	Use of special devices
4	Moderate hearing loss (40-90 dB)*	Tasks in which limited hearing is required	Use of hearing augmentation devices (amplification, bells, lights, etc.)
5	Severe hearing loss (greater than 90 dB)*	Tasks requiring no hearing unless accommodated.	Use of other signals: bells, lights, computer or written communication or use of signing persons
6	Hearing loss related to noise exposure.	Tasks without significant noise exposure	Require noise protection or re-assignment
7	Recurrent allergic rhinitis, sinusitis, etc., related to work-place irritants/allergens	All but those with identified work-place irritants/allergens	Use of filtering mask, improved ventilation or re-assignment
8	Special circumstances, including loss of taste, smell, or facial abnormality, etc.	Depending on specific problem	According to situation (Change duties or reassignment.)
9	Under evaluation	Depending on situation	Depending on situation
10	Health problem where work activity is inappropriate	None	Review if improved

\* All hearing determinations are based upon use of adequate hearing aids, which can be used in either or both ears, whichever is most effective. Profile should be based on compensated hearing in the better ear with use of aids that can be used at work.

## CATEGORY H: GASTROENTEROLOGY (G.I.)

Gastroenterology deals with disorders involving the intake, processing, absorption, and evacuation of food and its residues.

While detailed mechanisms of malfunction vary considerably from organ to organ, there are many similar consequences. For example, interference with intake of food or excessive peristalsis may have as common results a serious loss of weight, feeling of unwellness and loss of stamina.

A careful medical history and physical examination, supplemented by ordinary laboratory tests will usually suffice for profiling. The likelihood of change may be indicated on the report form and if such change occurs, a new profile report form should be filled out so that the employer may make appropriate job adjustments.

The following areas are considered: weight; esophagus, stomach and duodenum; small and large intestine; rectum and anus; fistulas; liver; pancreas; stomas and hernias. Some of these may be better profiled by reference to other categories, as, for example, a post-operative hernia is considered under Category M-S (General Surgery).

Weight: Consider overweight under Category M-M (General Medical). Underweight, which may be caused by difficulty in chewing as well as other gastrointestinal disorders, may be profiled according to its effect on strength or stamina.

Esophagus, stomach & duodenum: Consider pain, difficulty in swallowing or obstruction, which often result in weight loss and loss of stamina.

Small and large intestine: Consider pain, diarrhea, obstruction and debility.

Rectum and anus: Consider the same, plus incontinence of feces. Hemorrhoids may limit heavy lifting activities.

Liver, biliary tract and pancreas: Consider nausea, lack of stamina, jaundice, recurrent pain and debility.

Hernias and fistulas may be profiled under Category M-S (General Surgical Disorders).

Infectious conditions may be profiled under Level 8 (Special Considerations) or under an appropriate level under Category M-M (General Medical Disorders).

Suggestions for possible accommodations vary from general decrease in level of physical exertion required or reduction of hours of work to more specific things such as relocation of worksite for better access to toilet facilities, allowing time off for medical treatments, etc..

**CATEGORY H: GASTROENTEROLOGY**

<b>PROFILE LEVEL</b>	<b>CIRCUMSTANCES</b>	<b>APPROPRIATE WORK ACTIVITY *</b>	<b>POSSIBLE ACCOMMODATION</b>
1	No past limitation	All	None
2	Past limitation, fully recovered	All	None
3	Minimal problems and/or infrequent exacerbations	Heavy, except for intervals	Temporary change of responsibilities at times of exacerbations
4	Slight persisting or recurring problems and/or slightly decreased stamina	Medium	Medium or sedentary in event of recurrences
5	Moderate persisting problems and/or moderately diminished stamina	Medium, with decreased workload	Lifting devices, changing work surface levels, rest periods, limited hours, change in work assignments, special schedule
6	Severe persisting problems and/or diminished stamina	Sedentary	
7	Problems of rectal incontinence	At selected worksites	Locate near private toilet
8	Special consideration	Depending on specific problem	According to situation
9	Under evaluation	Depending on situation	Temporary adjustment
10	Health problem where work activity is inappropriate	None	Review if improved

\* See Appendix III for levels of work.



## CATEGORY I-G: GENITOURINARY-GENERAL

This category deals with disorders of the reproductive system and of the organs that produce, store and discharge urine. Since reproductive functions of men almost never have any impact on functional ability in the workplace, these have been disregarded and this section focuses primarily on the kidneys and bladder and their appendages, irrespective of gender. However, since the effects of pregnancy and related problems do affect the workplace, a separate category has been used for women's problems, identified as Category I-W (Genitourinary-Women's Disorders/Pregnancy).

Symptoms and signs of impairment of function of the upper urinary tract may include changes in voiding; edema; impairment of physical stamina; loss of weight and appetite; anemia; uremia; abdominal, loin, or costovertebral angle pain; hematuria; chills and fever; hypertension and its complications; abnormalities in the appearance of the urine or its sediment; and biochemical changes in the blood. Renal disease may be evidenced at times only by laboratory findings. Other objective techniques in evaluating upper urinary tract functions are primarily physiologic techniques.

Chronic effects of renal disease requiring dialysis may be profiled under Category M-M (General Medical). Post-operative limitations or complications may be dealt with under Category M-S (General Surgery). Kidney stones may cause complete interruption of work activity for a time.

The bladder and urethra are concerned with storage and delivery of urine. The bladder is a voluntarily controllable reservoir for urine that normally permits the patient to retain urine for several hours. Symptoms and signs of impairment of function of the bladder may include urinary frequency, pain with voiding (dysuria), incontinence, retention of urine, hematuria, pyuria, passage of urinary calculi, a suprapubic mass or pain. Objective techniques useful in evaluating function of the bladder include but are not limited to cystoscopy, cystography, voiding cystourethrography, cystometry, uroflowmetry, urinalysis, and urine cultures.

Increased urinary frequency may have a significant impact on certain jobs requiring continuous attention. Anyone requiring any sort of catheter drainage will require privacy for routine care.

**CATEGORY I-G: GENITOURINARY-GENERAL  
(FOR MEN & WOMEN)**

PROFILE LEVEL	CIRCUMSTANCES	APPROPRIATE WORK ACTIVITY *	POSSIBLE ACCOMMODATIONS
1	No past limitation	All	None
2	Past limitation, fully recovered	All	None
3	Mild or intermittent symptoms	Heavy	Task change on occasions
4	Slight or intermittent symptoms	Medium	Use of assistive devices, change in work surfaces, change of tasks, rest periods, limited hours, special schedule or easier access to toilet facilities
5	Mild symptoms with decreased stamina	Light	
6	Moderate to severe symptoms with decreased stamina	Sedentary	
7	Moderate to severe symptoms with increased frequency or incontinence	Variable, with immediate access to or privacy of toilet facilities	
8	Special circumstances	Depending on specific problem	According to situation
9	Under evaluation	Depending on situation	Temporary adjustment
10	Health problem where work activity is inappropriate	None	Review if improved

\* See Appendix III for levels of work.

## CATEGORY I-W: WOMEN'S DISORDERS/PREGNANCY

Women's disorders applies to any condition directly relating to the female genital tract and to problems associated with the female endocrine milieu. Problems may be primarily anatomic or mainly hormonal. They may be continuous, intermittent or cyclical along with menstrual patterns. Profile levels may be changed from month to month, depending upon response to treatment or the course of a pregnancy.

### Women's Genitourinary Problems

Problems of the vulva and vagina are frequently associated with pain, which may be aggravated by certain work activities.

Pelvic disorders affecting the uterus, the tubes or ovaries may involve pain and/or anatomical distortion, frequently requiring surgical removal. Symptoms may include excessive bleeding or menstrual or ovulatory pain.

Pelvic relaxation disorders may result in pain and/or prolapse, which may require sedentary or light work.

Recovery from gynecologic surgery may be profiled under this category according to the degree of limitation, as a special circumstance under Profile Level 8, or under an appropriate profile under Category M-S (General Surgery). The description of women's problems of the kidneys, ureters, bladder and urethra should be profiled under Category I-G (Genitourinary-General).

### Endocrine Effects

Since most women are able to and generally do continue their work throughout the month, no specific category has been set up for PMS (premenstrual syndrome). However, in those with documented intermittent problems, Profile Level 8 may be used by the health care provider to identify such limitations as may be appropriate to the individual case. Only rarely should emotional and behavioral problems be considered part of a woman's physical disorders. These should generally be profiled under Category I-P (Psychiatric/Psychologic/Emotional). The menopause is not believed to affect functional ability in the workplace.

### Pregnancy

Pregnancy produces temporary changes which affect individuals in a variety of ways. Women should not be limited on the basis of pregnancy alone, but rather on any effects of pregnancy, such as fatigue or back strain occurring only during the pregnancy. If the mother and fetus are healthy and the job presents no greater risks than those found in daily life, the mother can probably work until labor begins and resume work several weeks after giving birth. (Working During Your Pregnancy - Am. College of Obstetricians and Gynecologists).

Obstetrical complications may affect maternal or fetal health or retention of the fetus until term. Work load adjustments may be necessary because of problems with the current pregnancy or because of a history of past obstetrical problems. Among these are preeclampsia, placental abnormalities, and a history of late miscarriage or preterm birth. Restriction of work activity or extended bed rest may be essential. Medical conditions such as diabetes, kidney disease, heart disease, hypertension and back problems may compound pregnancy-related disability. They should be considered in assigning an appropriate functional level. Continuing problems should also be profiled under appropriate categories.

### Occupational Exposure

Of great importance to every woman who becomes pregnant is exposure to potential teratogens. Employers should make every effort to allow pregnant women to work in areas safe from such exposure. However, a woman should not be forced to lose her job or her income during gestation. Information about teratogenic effects of chemicals and other substances found in the workplace can be obtained from the Rocky Mountain Center for Occupational and Environmental Health (801) 581-8719 or 581-5056. Other resources are the Pregnancy Riskline (801) 583-2229 and the local health department. Ideally, workplace exposure will be evaluated in a written document. A pregnant employee should be counseled about the risks and may then be given her choice of the following options:

1. Request reassignment for the duration of the pregnancy to an alternate duty area without any known reproductive hazards.
2. Continue working in her assigned area, using all appropriate protective clothing and equipment.
3. Take short-term disability leave for the duration of the pregnancy (may request written approval from the private physicians).

uggestions for Possible Accommodations

is recognized that an employer cannot and should not make gender-specific rules regarding employment, so that these profiles are designed to be applied to individuals depending upon the nature of their health circumstances. Likewise, the listed accommodations are to be thought of as suggestions only, which an employer can use, depending upon the nature of the work involved, the size and variety of his work force and other considerations.

These recommendations are generally consistent with those made by the American College of Obstetrics and Gynecologists. Informational materials for workers and employers are available from them (409 12th St. S.W., Washington DC 20024-2188).

**I-W GENITOURINARY (WOMEN'S DISORDERS/PREGNANCY)**

PROFILE LEVEL	WOMEN'S GENITOURINARY DISORDERS (OTHER THAN PREGNANCY)	PREGNANCY	APPROPRIATE WORK ACTIVITY*	POSSIBLE ACCOMMODATIONS
1	No past limitation	--	All	None
2	Past limitation, fully recovered	--	All	None
3	Mild or intermittent slight symptoms	Uncomplicated pregnancy, with mild or no symptoms	Heavy	During pregnancy occupational exposure to a potential teratogen requires special investigation, counseling and action. (See narrative.)  Minor flexibility in task assignment  Adjusted work schedules. Use of assistive devices. Adjust height of work surfaces. Schedule to allow increased rest periods, with adequate facilities.  Limit hours of duty. Use of assistive devices. Increased rest periods. Access to toilet facilities.  According to situation  Temporary adjustment  Review if improved
4	Slight persisting problems	Uncomplicated pregnancy with slight recurring symptoms	Heavy with adjustment of task sequence	
5	Moderate persisting problems	Uncomplicated pregnancy with moderate symptoms and/or previous difficulties with pregnancy	Medium	
6	Severe persisting problems	Complicated pregnancy or history of past miscarriage, etc.	Light	
7	Severe problems with increased symptoms with standing, and/or with decreased stamina	Complicated pregnancy, with severe problems and/or past miscarriage, etc.	Sedentary	
8	Special circumstances		Depending on specific problem	
9	Under evaluation	Depending on situation		
0	Health problem where work activity is inappropriate.		None	

\* See Appendix III for levels of work.

## CATEGORY J: DIABETES

Diabetes mellitus may affect functional ability in the workplace in the following ways:

- (1) Directly through the effects of fluctuation of the person's blood sugar.
- (2) Through the time required for management of the diabetes.
- (3) As a result of complications which accompany the diabetes, such as visual impairment, lower extremity problems (foot or leg ulcers), cardiovascular problems, etc.
- (4) As a result of fatigability resulting from poor control of diabetes and/or its complications such as kidney or cardiovascular disease.

Persons with diabetes may be divided into two subgroups--insulin users and non-insulin users. Those using insulin may require more time and space accommodations for monitoring blood glucoses, having food available at specific times and taking insulin injections as needed. They are also much more susceptible to developing hypoglycemia (low blood glucose) with its attendant temporary physical and mental disability. Hypoglycemia is the preeminent risk associated with diabetes and its day-to-day management. This risk is far greater for individuals who use insulin injections, although it does also exist for those who use oral hypoglycemic medications.

Proper brain function is totally dependent on an adequate supply of glucose from the bloodstream. If blood glucose is allowed to drop below normal levels, impairment of brain function and its consequences will occur. The avoidance of such dysfunction depends on the individual with diabetes achieving a fine balance of his/her intake of food and insulin, with modifications for stresses and physical activities. Time away from work activity for eating may have to be allowed intermittently and unexpectedly to prevent or treat low blood glucoses, to achieve recovery of full physical and mental function following a low blood glucose reaction, and to monitor blood glucoses or the taking of an insulin dose. The proper timing of food intake is often critical to maintaining metabolic balance. Accommodation should be made to allow intake of meals and snacks at specific times and not to allow them to be delayed by work demands.

Most insulin users can readily recognize the symptoms of lowered blood glucose and can quickly reverse these if allowed prompt access to food and glucose monitoring equipment. However, some individuals who take insulin may have difficulty recognizing the signs of low blood glucose (hypoglycemic unawareness) and therefore, transiently become mentally impaired and at risk to themselves and others in the operation of hazardous equipment or vehicles. Of special note is that physical activity often enhances the blood glucose-lowering effect of insulin.

A specific complication of diabetes is chronic foot ulceration. To allow healing, the area of ulcer must not be weight-bearing. An individual with such an ulcer may otherwise be totally functionally able but must keep his/her weight off the area of ulceration. Accommodation such as working from a sitting position or from a wheelchair may be reasonably expected.

It is recommended that employers of persons with diabetes be given specific educational materials to share with employees as part of a general safety program that respects the confidentiality of the worker's medical record.

If complications of diabetes produce significant impairment, these should also be profiled according to the following special problems:

- Visual impairment - Category F: Ophthalmology
- Heart disease - Category D: Cardiovascular
- Impairment of mobility - Category A-L: Musculoskeletal-Lower Extremity
- Generalized fatigue, weakness or lack of stamina or chronic kidney impairment -  
Category M-M: General Medical Disorders
- Recurring episodes of loss of consciousness or control (hypoglycemia) - Category B-E:  
Epilepsy and Other Episodic Disorders

**CATEGORY J: DIABETES**

PROFILE LEVELS	CIRCUMSTANCES	APPROPRIATE WORK ACTIVITY	POSSIBLE ACCOMMODATIONS
1	No past limitation	All	None
2	Past limitation, fully recovered	All	None
3	Non-insulin dependent diabetes, without related physical limitations	Tasks allowing for access to meals/snacks and reasonable regularity of work schedules	Usual physical (space/time) allowances for daily management of condition
4	Insulin dependent diabetes without physical limitations related to diabetes	Same as 3 above. Opportunity for injections.	Same as 3 above
5	Physical limitations due to intermittent or minor loss of functional ability due to hypoglycemia	No tasks involving risk to others* and same as 3 & 4 above	Same as 3 & 4 above. Careful observation and reporting
6	Recent (or repeated) history of severe hypoglycemia with or without hypoglycemia unawareness	No operation of vehicles or tasks involving risk to self or others, and same as 3 & 4 above*	Same as 3 & 4 above. Careful observation and reporting. No extended work away from others.
7	Specific complications of diabetes (such as foot or leg ulcers, etc.) or lack of stamina, etc.	Sedentary tasks or those with very limited standing or walking and same as 3 & 4 above	According to situation
8	Special circumstances	Depending on specific problem	According to situation
9	Under evaluation	At discretion of health care provider	Temporary adjustment
10	Combination of diabetic complications and/or frequent metabolic disarray which does not allow reasonable accommodation to be made in the work place.	None	Review if improved

\* See Category B-E (Epilepsy and Other Episodic Conditions) for considerations in evaluating risk.

## CATEGORY K: DERMATOLOGY

In general, skin conditions that cause itching, stinging, burning, cracking, fissuring, secondary infection of the skin, or in other ways make the skin too miserable for a person to concentrate and function in the work environment, would be considered a significant impairment depending on the nature of the job. Minor problems such as dryness of the skin, minor cracks and fissures without bleeding or infection, minor irritation with redness and scaling of the skin, may be treated on an ongoing basis without causing interruption of employment. Infectious skin conditions may be profiled under Category M-M (General Medical Disorders).

Skin conditions are an extremely common problem in the workplace, and vary greatly, depending upon the status of the patient and the work conditions under which an employee is expected to perform. As a model for determining an appropriate profile, four groups are listed below, along with three levels of severity for each.

### A. Normal Skin with Allergic Reaction:

- I. Minor localized reactions to allergens contacted at work can often be avoided if allergens are not ubiquitous in the work place. (Profile 3) Normal duties may be continued if the allergic reactions on the skin can be prevented by one of the following: (a) protective clothing, (b) avoidance of work areas where allergen is present, and (c) quick treatment of infrequent, minor allergic contact dermatitis.
- II. Moderate involvement of up to 25% of body surface may occur and frequently recur. (Profile 5) Normal duties will be difficult if frequent exposures to allergen cannot be avoided. The following solutions should be explored if normal duty is to continue. If unsuccessful, intermittent duty may be necessary to allow for recovery from allergic reactions. Suggestions include: (a) extensive protective clothing barriers, etc., to avoid contact with allergen, (b) containment of allergen to avoid contact with workers, (c) avoidance of work areas where allergen is present, and (d) reassignment to work areas where allergen is not present at all.
- III. Severe, extensive or generalized allergic contact dermatitis may occur whenever entering the workplace. All attempts at protection or avoidance of exposure within the work place are ineffective or inadequate. (Profile 7) Suggestions include: (a) avoidance of entire facility where allergen is present and (b) retraining for job change and or reassignment within the company to responsibilities where contact with the allergen is virtually impossible.

Example: A person goes to work at a department store, becomes allergic to the fire retardant used to spray boxes in the warehouse. Has severe generalized sustained reaction to fire retardant when stock is brought to retail floor. The eruption clears during vacations and promptly recurs within 24 hours of returning to work.

### B. Abnormal Skin with Allergic Reactions:

- I. Minor. Allergic contact dermatitis may exacerbate existing skin diseases. (Profile 3) Where impairment is minimal or localized, normal duty can continue with treatment or protection of the underlying skin disease and allergic contact dermatitis.
- II. Moderate. An underlying skin disease that is aggravated by an allergic reaction may continue to be a problem for a period of time which extends far beyond the allergic reaction. (Psoriasis and atopic dermatitis are examples of diseases where this may be the case.) (Profile 5) Limited duty or intermittent duty may be possible if skin disease and allergic contact dermatitis are well controlled by treatment and or protection from exposure to allergens in the workplace.
- III. Severe generalized skin diseases may be aggravated by exposure to allergens in the workplace. (Profile 7) Temporary absence from work, limited duty or reassignment may be necessary until the skin becomes stable enough for employment to continue.

Example: A worker with psoriasis develops severe allergic contact dermatitis to nickel while working in a metal finishing shop. The allergy causes a severe flare of the psoriasis; however, the allergic contact dermatitis resolves when the worker is off work for at least two weeks and recurs when he returns to work.

### C. Normal Skin With Non-allergic Reactions:

- I. Mild non-allergic reaction of the skin may include trauma, burns (chemical and thermal), radiation, scar formation, cracks, fissures, pruritus, burning, paresthesia, vascular changes or any other abnormal temporary or permanent alteration in the structure or normal functions of the skin. (Profile 3) With minimal impairment and or treatment, normal duty may continue.

- II. Moderate skin reactions may cause abnormal sensation, texture, limitation of skin movement. Loss of barrier function of the skin, infection, bleeding, blistering, fissuring or other abnormal condition of the skin that limits the comfort or performance of the worker. Appropriate change of duty may be necessary until the skin returns to normal or near normal.
- III. Severe reactions may result from non-allergic exposures which are temporary. Adequate time for recovery must be allowed as deemed necessary by physician. (Profile 6) Limited or normal duty may be acceptable as recovery progresses. Permanent severe changes in the skin may result in severe permanent impairment (e.g., severe keloid scars on hands or feet, limitation of movement of digits or limbs).

Example: A worker with normal skin works for three months in a kitchen, washing dishes, during which time severe irritant dermatitis develops on hands and forearms due to chronic water and soap exposure. Rash clears completely during vacations.

D. Abnormal Skin - Non-allergic Reaction

- I. A mild non-allergic reaction may permanently alter an underlying skin condition. For example, a burn in a psoriasis patient may exacerbate the underlying psoriasis, thereby complicating the treatment and the worker's ability to return to the workplace. Minimal non-allergic reactions and minimal aggravations of underlying skin conditions may allow continued normal duty with treatment.
- II. Moderate reactions with any of the signs and symptoms noted in C above may require limited duty until the non-allergic reaction subsides and the aggravation of the underlying skin condition is controlled. (Profile 4)
- III. Severe non-allergic skin reactions may be complicated by an underlying skin condition. (Profile 6) As the reaction subsides and the underlying skin condition improves, limited or normal duty may be resumed without worsening either the non-allergic skin reaction or the underlying abnormal skin condition. Severe reactions causing permanent disabilities and/or permanent exacerbation of underlying abnormal skin conditions may prevent return to work.

Example: Worker with atopic dermatitis develops a severe hand dermatitis (dyshidrosis) while working in the produce department of a grocery store. The eruption becomes chronic and is slow to respond to topical medications.

**CATEGORY K: DERMATOLOGY**

PROFILE LEVEL	CIRCUMSTANCES	APPROPRIATE WORK ACTIVITY	POSSIBLE ACCOMMODATIONS
1	No past limitation	All	None
2	Past limitation, fully recovered	All	None
3	Mild allergies or non-allergic skin reaction (A-I, B-I, C-I and D-I)	Work that limits exposure to allergens or irritants, (protective clothing, etc.)	Allow prompt treatment of recurrences. Use of protective clothing.
4	Moderate non-allergic skin reaction (C-II and D-II)	Work that minimizes exposure to irritants (protective devices)	Change duties or worksite; minimize irritant exposure; protective clothing/devices
5	Moderate allergic skin reaction (A-II and B-II)	Work that eliminates exposure to allergen (protective devices)	Change duties or worksite; protective devices/clothing
6	Severe non-allergic skin reaction (C-III and D-III)	Work that eliminates any exposure to irritants.	Change of duties or worksite; protective devices, etc.
7	Severe allergic skin reaction (A-III and B-III)	Work that eliminates any exposure to allergen.	Consider transfer or training for other work
8	Special circumstances	Depending on specific problem.	According to situation
9	Under evaluation	Depending on situation	Temporary adjustments
10	Health problem where work activity is inappropriate	None	Review if improved



## CATEGORY L-M: LEARNING, MEMORY, AND COMMUNICATION

There are many ways to classify jobs or work tasks. Work tasks are arbitrarily divided into those requiring simple or complex mental activity. Further, they are operationally defined to explain the worker's ability in learning, memory, and communication. It is recognized that most jobs require a combination of both simple and complex tasks. Assignment of a profile level should represent a summation of the person's ability to accomplish work tasks.

An individual who is able to perform a complex job has the ability to complete special training or education (on or off the job site), work independently, and adapt to a variety of changes in the workplace. The individual is able to maintain concentration and pace on a full work schedule. The individual is able to communicate in the workplace to fulfill the work assignments. Communication usually involves problem solving.

An individual who is able to perform a simple job is able to acquire the skill with no special training or education, and to master the work task with limited training (usually on the job site). The work task is generally manual and/or physical and requires one- or two-step job instructions. There is no significant change in the work task or environment, requiring adaptation by the worker. Limited communication skills are required, with the communication centered on the training and maintenance of the work task. The tasks are usually repetitive and require no problem solving.

Usual supervision is defined as guidance or instruction from a supervisor, devices to aid in memory, communication, and learning, and arrangement of the work schedule to maintain concentration and pace during the work task.

### Functional Profile Levels:

Functional profile levels 1 and 2 are self-explanatory.

Functional profile level 3 defines an individual who is able to learn new, complex job tasks with the assistance of supervisors or devices and perform complex job tasks previously acquired without any special supervision. In addition, the individual is able to learn and perform simple job tasks with usual supervision.

Functional profile level 4 describes an individual who is unable to learn new complex job tasks, even with assistance, but able to perform previously learned job tasks without assistance. The individual is able to learn and perform simple job tasks with usual supervision.

Functional profile level 5 describes an individual who is able to perform complex job tasks, only with special supervision, and learn and perform simple job tasks with usual supervision.

Functional profile level 6 defines an individual who is unable to perform complex job tasks even with assistance, but able to learn new, simple job tasks with adequate supervision.

Functional profile level 7 defines an individual who is able to perform simple job tasks previously learned with usual supervision, but is not able to learn new job tasks.

Functional profile level 8 describes special circumstances, such as those in which an individual is able to perform simple job tasks only with special supervision. This may be also used for individuals who are expected to move to higher levels if given the opportunity.

Individuals with impairment in learning, memory, and communication may also display impaired judgment, impulsivity, impaired concentration, distractibility, abnormal behaviors, and psychological impairments. These associated features should also be considered in establishing the profile level. Ability may fluctuate in relation to the effects of medication, alcohol or drug abuse, emotional stability, stress, fatigue, etc. Therefore, a person's habits, stability, and related impairments should be carefully considered in establishing the overall functional level. The effects of age will vary on an individual basis, and may also be considered.

The use of neuropsychiatric assessments such as the Wechsler Adult Intelligence Scale (WAIS), Halstead-Reitan, or Luria-Nebraska batteries may be useful in determining brain function abilities and limitations. These tests can establish subtle changes in mentation often seen in closed head injuries. In addition, repeated testing during recovery may aid in establishing new profile levels.

In a majority of individuals who are injured, the most significant degree of improvement in learning, memory, and communication occurs within the first year after stabilization of the underlying cause. Re-evaluation should occur more frequently during this recovery period. In illnesses resulting in progressive impaired cognitive functions (brain tumor, Alzheimer's disease, etc.), frequent review of abilities may be required.

**CATEGORY L-M: Learning Memory and Communication**

PROFILE LEVEL	CIRCUMSTANCES	APPROPRIATE WORK ACTIVITY	POSSIBLE ACCOMMODATIONS
1	No past or current limitation	All	None
2	Past limitation, full recovery	All	None
3	Ability to learn new complex tasks with usual supervision	Learning new complex tasks	None
4	Ability to perform previously learned complex job tasks with usual supervision	Doing previously learned complex tasks with usual supervision	None
5	Ability to perform previously learned complex job tasks with special supervision	Doing previously learned complex tasks with special assistance	Careful training
6	Ability to learn new simple job tasks with adequate supervision	Learning simple tasks with supervision	Simplification of tasks and careful supervision
7	Ability to perform simple job tasks with usual supervision	Doing simple tasks with usual supervision	
8	Special circumstances such as ability to perform simple job tasks with special supervision	Doing simple tasks with special supervision	
9	Under evaluation	Depending on situation	Temporary adjustments
10	Temporary or permanent limitation where any type of work is not appropriate	None	Review if improved

## CATEGORY L-P: PSYCHIATRIC/PSYCHOLOGICAL/EMOTIONAL DISORDERS

Psychiatric disorders, even those which affect a person more globally (e.g., psychosis), do not consistently compromise a person's ability to work safely and productively. The effect of psychiatric disorders and emotional conditions on the functional capacity for work varies greatly between individuals as well as within individuals over time. This makes the prediction of work capacities difficult, even for persons with like diagnosis. Psychiatric disorders commonly contribute to demoralization and lowered self esteem. Therefore, the restoration of a capacity to work may have a favorable impact upon recovery from an episode of psychiatric illness. Sensitive attention to a series of progressively declining accommodations in the workplace may have special importance for ultimate recovery.

Medications used with management of psychiatric disorders may contribute side effects which interfere with safe and productive work. More often than not, such side effects diminish or disappear following dosage adjustment and adaptation to the drug regimen. When levels of alertness, concentration or coordination are affected by medication side effects, the profile level should be correspondingly adjusted to reflect improvement or decline.

The following definitions may help when assessing the limitations imposed by the worker's disorder and/or treatment regimen:

- a. Judgment refers to the worker's practical capacities to respond to customary work expectations with appropriate, effective and sustainable work behaviors consistent with peers.
- b. Adaptation means the capacity to cope with reasonable stress in the workplace without deterioration of performance. Such stress may reasonably include attendance, making work-related decisions, meeting schedules, completing tasks, and interacting with peers and supervisors.
- c. Social functioning refers to the worker's capacity to interact appropriately and communicate with adequate effectiveness with others.
- d. Concentration (also includes capacity for persistence and pace) refers to the worker's ability to sustain focused attention long enough to permit the timely completion of tasks commonly found in work settings.

Substance use disorders occur with greater frequency among persons with psychiatric disorders. It is important that such coexisting disorders be recognized and treated in order to diminish limitations affecting work performance. Likewise, other psychiatric problems of learning, such as memory or communication may coexist. Giving more than one profile level (L-M, L-P, or L-S) for the same person may be appropriate.

The assignment of work activities should take into account the person's current capacities with respect to safety for self and others and sufficient time to relearn old tasks and regain strength, pace and persistence with duties. Workers who drive vehicles must comply with driver license guidelines. Those operating potentially dangerous machinery should be evaluated following the same principles.

The success of accommodations in the workplace for persons with psychiatric disorders relates directly to the sensitivity and creativity with which supervision is conducted. Such accommodations may involve:

- a. breaks and rest periods
- b. reducing extraneous stimuli
- c. frequent feedback with emphasis on positive accomplishments
- d. exemption from shift work when sleep cycle is impaired
- e. reduction of job complexity into more defined component parts
- f. flexibility in assigning coworkers
- g. selective inattention for minor social gaffes
- h. modeling concentration, pace, and persistence
- i. closer monitoring of tasks which may involve danger to self or others

**CATEGORY L-P: PSYCHIATRIC/PSYCHOLOGICAL/EMOTIONAL DISORDERS**

<b>PROFILE LEVEL</b>	<b>CIRCUMSTANCES</b>	<b>APPROPRIATE WORK ACTIVITY</b>	<b>POSSIBLE ACCOMMODATIONS</b>
1	No history of psychiatric or emotional condition; no past limitation	All	None
2	Past history of psychiatric or emotional condition; past limitation in full remission for 3 years	All	None
3	Current psychiatric or emotional condition with mild intermittent limitations of judgment, adaptation, social functioning, or concentration	Frequent monitoring of full array of assigned duties	Minimal and temporary use of accommodations
4	Current psychiatric or emotional condition with mild persistent limitations of judgment, adaptation, social functioning, or concentration	Selective reassignment of some tasks which prove too difficult, leading to a more productive work routine	Minimal and more permanent accommodations
5	Current psychiatric or emotional condition with moderate intermittent limitations of judgment, adaptation, social functioning, or concentration	Close supervision of limited work activities using progressively more complex of tasks	Progressive application of more complex accommodations
6	Current psychiatric or emotional condition with moderate persistent limitations of judgment, adaptation, social functioning, or concentration	Close supervision of limited work activities which challenge residual capacities	Supportive and structured accommodations
7	Current psychiatric or emotional condition with severe limitations of judgment, adaptation, social functioning, or concentration	Close supervision and highly selective assignment of tasks. Work activities should not be permitted which involve any risk to the individual or others.	Significant limitations and accommodations
8	Special circumstances	Depending on specific problem	According to situation
9	Under evaluation	Close supervision and highly selective assignment of tasks. Work activities should not be permitted which involve any risk to the individual or others.	Significant limitations and accommodations; temporary adjustments
10	Current psychiatric or emotional condition with potential risk to self or others; and/or with commitment status.	None	Review if improve

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## CATEGORY L-S: SUBSTANCE USE DISORDERS

Substance use means inhaling, swallowing, or injecting any substance that has the potential to impair one's cognitive, emotional, or motor functioning. The general categories of these substances are: (1) alcohol; (2) illicit substances, such as opiates, amphetamines, cocaine, and marijuana; (3) substances not intended for human consumption, such as inhaling solvent fumes; and (4) prescription drugs, such as narcotic pain relievers, stimulants, sedatives, and anti-anxiety agents.

Substance abuse means using these substances in such a way that there are demonstrated evidences of or history of continuing episodes of impairment of one's cognitive, emotional, or motor functioning.

Side effects from the appropriate use of prescribed medications would not be considered abuse (e.g. sedation as a side effect from using anti-anxiety agents for the treatment of panic disorder). While these side effects could impair functional ability, they would be evaluated under the category of the primary illness (e.g. Psychiatric/Psychological/Emotional for panic disorder).

Tests which may be useful for making a diagnosis of substance abuse and for profiling include: random blood alcohol testing; random urine or hair drug analysis; documentation of compliance with requirements of an approved treatment program; and documentation of regular attendance at self-help recovery groups.

Substance use disorders put an individual at a high risk of being a danger to self or others in the workplace. Examples of work activities that potentially put the individual or others at risk include: operating machinery, operating motor vehicles, and making decisions that involve others.

Limitation of work activities might involve a shift from active physical activity, use of tools or equipment, etc., to a sedentary or desk job where consequences of substance abuse would offer no risk to others, provided the essential functions of the job can be accomplished.

The profile sheet is only a general guideline and must be applied with common sense to the individual's actual work situation. For example, an individual with a chronic severe substance abuse problem who refuses treatment might not be impaired at work if his/her job was such that there was no risk to self or others and his work performance was acceptable to his employer. However, on the other hand, an individual with only infrequent, mild episodes of impairment from substance use outside the workplace might be at too great a risk to continue work activities which involve a high potential for harm to self or others.

In all cases where moving equipment is involved, Driver's License Guidelines should be adhered to, whether a commercial driver license is required or not.

**CATEGORY L-S: SUBSTANCE USE DISORDERS**

PROFILE LEVEL	CIRCUMSTANCES	APPROPRIATE WORK ACTIVITY <sup>a</sup>	POSSIBLE ACCOMMODATIONS
1	No history of substance abuse	All	None
2	History of substance abuse in remission for five years or more	All	None
3	History of substance abuse in remission for two to five years	Moderately high risk*; normal supervision Appropriate monitoring	Occasional reinforcement; normal monitoring; increased supervision; some limitation of work
4	History of substance abuse in remission for six months to two years	Moderate risk*; intermittent supervision; appropriate monitoring	
5	History of substance abuse within the past six months - currently in treatment and/or attending self-help recovery groups	Slight risk*; close supervision; appropriate monitoring	
6	History of substance abuse within the past six months - not currently in treatment and not attending self-help recovery groups	Limited risk*; close supervision; appropriate monitoring	Special supervision; limiting work activities
7	Chronic substance abuse with or without demonstrated episodes of impairment of cognitive, emotional, or motor functioning in the workplace	Limited risk to self*; close supervision; appropriate monitoring	
8	Special circumstances	Depending on situation	According to situation
9	Under evaluation	Work activities should not be permitted that involve any risk to the individual or others	Temporary adjustment
10	Chronic substance abuse with frequent episodes of demonstrated impairment of cognitive, emotional, or motor functioning in the workplace	None	Review if improved

\* See narrative for Category B-E (Epilepsy and Other Episodic Disorders) for definitions of risk level.

<sup>a</sup> In all cases where vehicles are used at work, a proper license is required, based on Utah Functional Ability in Driving Guidelines.

#### CATEGORY M-M: GENERAL MEDICAL DISORDERS

There are many general medical disorders which do not fall into any of the listed special categories. These include:

Generalized infections, without localized pattern.

Weight problems, anorexia, cachexia, malnutrition, etc.

Generalized symptoms, such as arthritis of multiple joints, or other generalized inflammatory disorders.

Geriatric problems; not identified elsewhere.

Relatively stable kidney impairment, with or without dialysis.

Generalized symptoms of endocrine or metabolic disorders which often involve decreased strength or stamina. These disorders include hypo- or hyper function of the pituitary, the thyroid, the parathyroid or the adrenal glands.

If another category is more specific, that category should be used. For example, a person may have generalized symptoms of malnutrition in the presence of chronic ulcerative colitis. This should be profiled under the gastroenterology category.

However, a person with generalized symptoms of an infection may have seizures and would require profiling under the Category B-E (Epilepsy) as well as Category M-M (General Medical Disorders Category).

Some general medical disorders have a fluctuating course, so that a reasonable limiting profile may be made as an average, with a suggestion that reasonable accommodation might include (1) absences because of symptoms or to permit necessary visits for medical care or therapy sessions; (2) more than the usual number of rest periods; (3) changes in work positions, as from standing to sitting, etc.

Frequently, there may be an ability to do certain kinds of work but there is limited stamina. Thus any of the profiles may be modified by suggesting a limitation on hours per day or per week. (See report form.)

If an individual uses a medical device, medications, or modified equipment to enhance his functional ability, he should be profiled for the resulting higher level of performance, rather than at a lower level without the device or medication.

**CATEGORY M-M: GENERAL MEDICAL DISORDERS**

<b>PROFILE LEVEL</b>	<b>CIRCUMSTANCES</b>	<b>APPROPRIATE WORK ACTIVITY*</b>	<b>POSSIBLE ACCOMMODATIONS</b>
1	No past limitation	All	None
2	Past limitation, fully recovered	All	None
3	Slight decrease in stamina	Heavy duty with reduced hours	Minor schedule or work adjustment
4	Slight decrease in strength, mobility and/or stamina	Medium duty	Special equipment to decrease exertion, such as mechanical aids, lifting devices, changing work surfaces. Limiting hours; rest periods, etc.
5	Moderate decrease in strength, mobility and/or stamina	Light duty	
6	Marked decrease in strength, mobility and/or stamina	Sedentary	
7	Risk to others (contagious diseases, etc.)	Limited exposure to others	Masks, washing, etc., as appropriate
8	Special circumstance, including problems in remission, but with increased risk of recurrence	Depending on specific problem	According to situation
9	Problem under evaluation	Depending on situation	Temporary adjustments
10	Health problem when work activity is inappropriate	None	Review if improved

\* See Appendix III for levels of work.



## CATEGORY M-S: GENERAL SURGICAL DISORDERS

General surgery covers a broad field and includes several subgroups.

The medical aspects of most conditions dealt with are covered under the profiles of medical specialities.

Profiles for the general surgical disorders category are to be used to cover the following:

- (a) Functional abilities of post-operative patients. This will most frequently refer to abdominal procedures, including operations on the gastrointestinal tract and biliary tract, hernias, spleen and retro-peritoneal structures, etc. Conditions for which the operations were performed include congenital abnormalities, infections, tumors, degenerative diseases, and trauma.  
  
This profile may be temporary and may be changed to indicate increasing ability in a recovering patient, or may be changed to reflect a progressive downward course. The frequency of change will vary according to individual situations.
- (b) Functional ability of post-operative patients whose primary condition may relate to a surgical subspecialty, but the other category may not reflect an adequate post-operative profile status. Whichever profile gives the most adequate description of the patient's ability and/or suggestions for accommodations may be used.
- (c) Functional abilities of disorders commonly treated by general surgeons and frequently followed by them over an extended period of time. These cases may include a variety of conditions, such as trauma, stomas, fistulas, cancers and leg ulcers, if the case does not fall into profiles for general medicine, hematology-oncology or other sub-specialties, etc..

Functional abilities are reduced by anatomical defects resulting from the disease or operation, as well as the loss of strength and stamina incident to the disease or the operative recovery. A careful history and physical exam will provide most of the information needed for profiling.

Endoscopic surgical procedures which do not require a major incision should be profiled according to the pattern of anticipated recovery, rather than according to the time frame suggested for major surgery shown on the profile sheet.

Special circumstances include the wearing of tubes, alternate routes of nutrition, on special diets, etc.. In cases of loss of consciousness or control, individuals should also be profiled under Category B-E for episodic disorders.

Suggested accommodations may vary according to specific problems. For example, individuals with a stoma usually require private toilet facilities. With decreased stamina, limited hours of work are suggested.

**CATEGORY M-S: GENERAL SURGICAL DISORDERS**

PROFILE	CIRCUMSTANCES	APPROPRIATE WORK ACTIVITY*	POSSIBLE ACCOMMODATIONS
1	No past limitation	All	None
2	Past limitation, fully recovered (over 2 mo. after most operations)	All	None
3	Recovered with slight decrease in stamina	Heavy duty with reduced hours	Limit hours of heavy duty or total hours
4	Slight decrease in strength and/or stamina, e.g., over 2 m. after hernia repair	Medium duty	1) Special equipment to decrease exertion, such as: lifting devices 2) changing work surfaces 3) rest periods 4) limited hours 5) changes in work assignments
5	Moderate decrease in strength and/or stamina, e.g., 2nd m. after operation	Light duty	
6	Marked decrease in strength and/or stamina e.g., 1st m. after operation	Sedentary	
7	Problem in remission, but with increased risk of recurrence	According to nature of problem	According to nature of problem
8	Special circumstances, not covered above, including risk to others	Depending on specific problem	According to situation. (Change of duties, hours, or facilities.)
9	Problem under evaluation	Depending on situation	Temporary adjustments
10	Health problem when work activity is inappropriate	None	Review if improved

\* See Appendix III for levels of work.

**PRINCIPLES USED IN DEVELOPING GUIDELINES  
FOR DEFINING FUNCTIONAL ABILITY IN THE WORKPLACE\***

1. Guidelines and standards should be the least restrictive possible consistent with the continuing good health of the individual and the safety of co-workers and the public involved.
  2. Functional ability to work safely, rather than impairments, should receive emphasis.
  3. Some impairments will permit working safely under appropriate limitations with the use of compensating personal devices, or with reasonable accommodations in the workplace.
  4. Fairness should prevail in these ways: (a) medically impaired workers should not be required to meet guidelines and standards of expected safety or performance in excess of those expected of unimpaired workers; and (b) workers with different kinds of impairments, but with similar estimated increases in work risk, should have as nearly the same limitations and accommodations as possible.
  5. A system for profiling all aspects of a person's health which may adversely affect a worker either intermittently or continuously will be made available to all health care professionals, agencies, employers, or others who may find them valuable.
  6. Health care professionals should not be expected to function as police, advocates, prosecutors, or judges in the process of workers' evaluations, but as individuals skilled in diagnosis and accurate reporting of functional ability, as well as teachers and advisors of their patients.
  7. Since the ultimate responsibility for safety will concern all workers, they should be involved in self-evaluation, in cooperation with medical evaluators, employers, and others concerned.
  8. Every opportunity should be used to educate all workers about the effects of physical and emotional health problems, use of drugs, etc., on their ability to work without harm to themselves or others.
  9. If anything related to medical profile reporting can be simplified, this should be done.
  10. Health care professionals are invited to help put into effect these principles of safety and fairness, and to increase workers' awareness of health in relation to work.
- \* In 1979, the Utah State Driver License Medical Advisory Board faced a similar challenge to develop functional ability guidelines for driving, which have been successfully used since then. Principles used by them have been paraphrased to apply to defining functional ability in the workplace.

## THE AMERICANS WITH DISABILITIES ACT\*

This section provides background on the Americans with Disabilities Act (ADA) and compares and contrasts the concepts of the Guides with those of the Act. The provisions of the ADA governing employment-related decisions (Title I) became effective on July 26, 1994, for private-sector organizations that employ 15 or more employees. Because the intent of the ADA is to compel organizations to employ qualified individuals with "disabilities," it is likely that physicians will experience an increasing demand for giving guidance to employers with respect to an individual's "disability" status. In addition, there will be questions regarding performance capability, acceptability of risk to oneself or others, the need for accommodation, and the type of accommodation that may be warranted. It is important to recognize that none of these is a medical issue.

The following definitions are based on the concepts of EEOC Title I Regulations and Interpretive Appendix (29 CFR 1630).

1. "Accommodation" means modification of a job or workplace that enables a "disabled" employee to meet the same job demands and conditions of employment required of any other employee in the same, or a similar, job. Accommodation need be considered only with respect to the essential functions of a job. Reasonable accommodation means accommodation that does not result in undue cost or hardship to the employer.
2. "Disability" means a physical or mental impairment that substantially limits one or more of the major life activities of the individual; or a record of such an impairment; or being regarded as having such an impairment. Note: Special exclusions exist.
3. "Essential functions of a job" means the fundamental duties of the employment position that the disabled individual seeks or holds. Essential functions may be understood to be those elements of a job such that failure in one or more of the elements would be cause for removal from the job. "Essential functions" do not include marginal functions.
4. "Major life activities" means such functions as caring for oneself, performing manual tasks, walking, seeing, hearing, speaking, breathing, learning, and working.
5. "Physical or mental impairment" means the following:
  - a. Any physiologic disorder or condition, cosmetic disfigurement, or anatomic loss affecting one or more of the following body systems: neurologic, musculoskeletal, special sense organs, respiratory (including speech organs), cardiovascular, reproductive, digestive, genitourinary, hemic and lymphatic, skin, and endocrine systems; or
  - b. Any mental or psychological disorder, such as mental retardation, organic brain syndrome, emotional or mental illness, and specific learning disabilities.

6. "Substantially limits" means the following:
  - a. The person is unable to perform a major life activity that the average person in the general population can perform; or
  - b. The person is significantly restricted as to the conditions, manner, or duration under which he or she can perform a particular major life activity, compared to the conditions, manner, or duration under which the average person can perform the same activity.

The ADA uses the term "disability," and its use of the concept is similar to the concept of "impairment" used in the Guides. It is important to note, however, that under the ADA identification of an individual with a "disability" does not depend on the results of a medical evaluation. An individual may be identified as having a disability if there is a record of an impairment that has substantially limited one or more major life activities or, of greater concern, if the individual is regarded as having a disability.

In carrying out and reporting the results of an impairment evaluation, it is essential that the physician distinguish carefully between an impairment that is documented in accordance with Guides criteria and a presumed impairment that is based on nonmedical factors. Clearly, a question exists as to whether or not an impairment based on Guides criteria automatically will constitute a "record" of an ADA-covered disability or signify that the individual is "regarded" as having such a disability.

"Accommodation" is not a medical matter. Accommodation is the result of an employer's decision regarding modifications of a job or workplace that are "reasonable" with respect to the employer's cost and the degree of hardship imposed. The physician may be able to help an employer understand the relationships between a medical impairment, the demands made of an individual in the workplace, and the individual's capabilities. The physician also can help the employer explore the need for accommodation. But it is not appropriate for the physician to recommend a specific accommodation.

Once the employer determines it is appropriate to accommodate an individual's disability and redefines the job or workplace, the physician's role is to answer the following question: "Is there a medical reason to believe it is not feasible or appropriate to assign these tasks and duties to this person under these [specified] working conditions?"

\*From Guides to the Evaluation of Permanent Impairment (Fourth Edition) American Medical Association. 1993. P319-20.

## LEVELS OF WORK

The physical demands of different jobs vary over a wide range. The outline which follows is widely used and generally understood both by lay and professional people. Generally, a clinical appraisal of the individual will provide information to define an appropriate level of work as indicated on the profile sheet for each category.

It is obvious that some functions, such as vision or hearing, do not relate to physical work level definitions, but most categories including musculoskeletal, cardiovascular, pulmonary and other general medical problems require an understanding of the meaning of various levels of work.

PHYSICAL DEMAND CHARACTERISTICS OF WORK

PHYSICAL DEMAND LEVEL	OCCASIONAL 0-33% OF WORKDAY	FREQUENT 34-66% OF WORKDAY	CONSTANT 67-100% OF WORKDAY	TYPICAL ENERGY REQUIRED
Very Heavy	Over 100 lbs.	Over 50 lbs.	Over 20 lbs.	Over 7.5 METS
Heavy	100 lbs.	50 lbs.	20 lbs.	6-4-7.5 METS
Medium	50 lbs.	20 lbs.	10 lbs.	3.6-6.3 METS
Light	20 lbs.	10 lbs. and/or Walk/Stand/Push/ of Arm/Leg controls	Negligible Pull/Push of Arm/Leg controls while seated	2.203.5 METS
Sedentary	10 lbs.	Negligible	Negligible	1.5-2.1 METS

The terms "occasional," "frequent" and "constant" refer to the frequency of "exerting a force," which includes lifting, carrying, pushing, pulling or any other similar physical activity. Repetitions in the course of an average workday are: occasional - 1-100; frequent - 100-500; and constant -500- plus. Thus, if a person is given a profile level for a medium level of work, he may be expected to lift 50 pounds occasionally, but only 20 pounds if required to do so One-third to two-thirds of the shift.

If walking is involved, light duty is generally considered as allowing walking at a rate of 2.5 mph or slower if carrying up to 10 lbs.. Medium duty involves walking up to 3.5 mph or slower if carrying up to 25 lbs.. Heavy duty calls for walking up to 3.5 mph and carrying up to 50 lbs.. For spine problems, concern for bending and twisting movements will require a more limited profile.

Occasionally, a "medium-heavy" level of work may be used by extrapolating to values approximately midway between "medium" and "heavy."

A person is not expected to be kept entirely pain-free at work, but it is a judgment call to determine what medication and/or exercise program is reasonable to make possible a less limiting functional profile level and hence a more demanding level of work. Often it is impossible for a person to be restored to full function or to be entirely pain free. The health care provider should emphasize functional ability and make his determinations as objective as possible, including in the evaluation an assessment of pain involved.

Since the ability to accomplish "very heavy" work depends to a large extent on natural physique, conditioning and motivation as well as health factors, the guidelines in this publication do not go beyond the "heavy" classification. This is with the understanding that anyone profiled for a "heavy" work level is eligible from a health standpoint also to do "very heavy" work, provided the other elements of physique, conditioning, etc. are present, which can be judged better by job supervisors than by medical personnel.

Specialized testing may be useful in evaluating functional ability for work levels, especially in cardiopulmonary cases. Using a motorized treadmill, it is possible to relate the exercise to excess energy expended and to a functional work level. The excess energy is expressed in terms of METS, which represents the multiples of resting metabolic energy for a given activity. One MET is considered to be 3.5 ML/(kg/min). For example, a 150-pound man who burns 1.2 K cal/min while sitting at rest uses approximately 3 METS when walking at a rate of 2.5 miles per hour.

While most individuals can reliably describe their work setting, it is often very valuable for a health care professional to visit the worksite or consult with work supervisors for more accurate job information.

References: Revised Handbook for Analyzing Jobs. U.S. Department of Labor. 1991. Chapter 12. Guides to the Evaluation of Permanent Impairment. Fourth Edition. A.M.A. 1993.

## GLOSSARY

It is anticipated that these Workplace Functional Ability Guidelines will be of value as a means of communication involving not only health professionals, but those in other disciplines. To facilitate this, a number of less used medical as well as other terms relating to the workplace have been included in the glossary. Where some terms have multiple meanings, we have selected the one that seems best to express the meaning in the context of its use in these Workplace Guidelines.

Many of the terms used have been defined for our purposes in the narrative section under each category. Some definitions have been taken from Guides to the Evaluation of Permanent Impairment (AMA Fourth Edition-1993). Others come from: Webster's Collegiate Dictionary (Merriam Webster-1993) or Webster's Medical Dictionary (Merriam Webster-1986). The use of the generic he/him/his is meant to include she/her/hers, as may be appropriate.

Where indicated, a page number in parenthesis after the definition suggests the principal place the term is used.

## A

**Ability** - competence in doing.

**Accommodation** - modification of a job or workplace that enables a "disabled" employee to meet the same job demands and conditions of employment required of any employee in the same, or similar job, considered only with reference to the essential functions of a job.  
(See Reasonable accommodation.) (3, 50)

**Activities of Daily Living (A.D.L.)** - an individual's capacity to carry out daily activities. Examples are: self-care, personal hygiene, communication, physical activity, sensory function, hand functions, travel, sexual function, sleep and social/recreational activities. See Major life activities. (3, 50)

**Affect** - relating to feelings or emotions.

**Aggravate** - to make worse, more serious, or more severe.

**Alcohol abuse** - alcoholism; continued excessive or compulsive use of alcohol. (41,43)

**Allergen** - a substance that produces allergy, or altered bodily reactivity. (19,37)

**Allergy** - altered bodily reactivity to a substance previously exposed to, often manifest by sneezing, respiratory embarrassment or skin reaction.

**American With Disabilities Act (A.D.A.)** - an act of Congress which became effective on 26 July, 1994, for organizations with 15 employees, or more, which requires them to employ individuals irrespective of "disabilities" and/or to make reasonable accommodations, as long as the "essential functions" of the job can be accomplished. (3, 50)

**Anemia** - condition of blood which is deficient in red blood cells, hemoglobin or volume. (23,24)

**Ankylosis** - stiffness or fixation of a joint. (7,9,11,3)

**Antigen** - a substance capable of stimulating an immune response. (19, 23,37)

**Arthritis** - inflammation or degenerative changes in joints. (7,9,11,13)

**Asthma** - a condition often of allergic origin that is marked by continuous or paroxysmal labored breathing accompanied by wheezing, sense of constriction, or coughing or gasping. (19)

**Atopic (dermatitis)** - skin reaction produced by exposure to an exciting antigen or allergen. (37)

**Autonomic** - referring to the part of the nervous system that governs involuntary actions, such as secretion, constriction or peristalsis. (15,25)

## B

**Bilateral** - affecting both the right and left sides.

**Bronchodilator** - a drug that relaxes bronchial muscle, resulting in expansion of the bronchial air passages, often used in treating asthma. (19)

**Bullous** - marked by a large vesicle or blister. (37)

## C

**CDL (Commercial Drivers License)** - a license to drive commercial vehicles on the highways. (17)

**Cardiology** - study of heart action and diseases. (21)

**Cardiovascular** - involving heart and blood vessels. (21)

**Cataplexy** - sudden loss of muscle power without loss of consciousness. (17)

**Category** - a division within a system of classification.

**Central acuity** - ability to see details directly in line of sight rather than peripherally, a function of the macula. (25)

**Cerebrovascular** - involving the brain and blood vessels supplying it. (15)

**Coagulation system** - elements of the body related to the clotting of blood. (23)

**Chiropractic** - a system of therapy which holds that disease results from a lack of normal nerve function and which employs manipulation and specific adjustment of body structures (as in the spinal column).

**Cognition** - conscious intellectual function. (39)

**Congestive heart failure** - inability of the heart to maintain adequate circulation of blood. (21)

**Conjunctivitis** - inflammation of the mucous membranes of the inner surface and front part of the eyeball. (25)

**Coronary** - referring to arteries or veins of the heart. (21)

**Costovertebral angle** - area where the lowermost ribs meet the vertebral column. (31)

**Cystoscopy** - insertion of an instrument into the bladder to examine it. (31)

## D

**Decibel (dB)** - a unit for expressing the relative intensity of sounds. (27)

**Dermatology** - branch of medicine dealing with the skin. (37)

**Diabetes** - disorder characterized by inadequate secretion of insulin, excessive urine production, excessive amounts of sugar in the blood and urine and by symptoms of thirst, hunger and weight loss. (35)

**Dialysis (kidney)** - processing blood so as to remove metabolic impurities and returning the blood to the body. (31, 45)

**Disability** - physical or mental impairment that substantially limits one of the major life activities. Under A.D.A, this includes a record of or being regarded as having such impairment. See Appendix II. (50)

**Disability determination** - See Social Security disability determination.

**Disfigurement** - altered or abnormal color, shape or structure of a visible body part. It may produce social rejection, impairment of self-image with self-imposed isolation, alteration of life-style or other adverse changes. (37)

**Dominant** - one of a pair of body structures that is more effective or predominant in action, as in hand or eye. (9,25)

**Drug abuse** - use of illegal drugs or improper (usually excessive) use of legal substances or medications. (43)

**Dyshidrosis** - abnormality of sweat production.

**Dyspnea** - difficult or labored breathing. (19,27)

**Dysuria** - painful or difficult discharge of urine. (31)

## E

**Edema** - abnormal accumulation of fluid in connective tissue, often causing swollen legs. (21)

**Endoscopy** - visualizing or doing procedures inside an organ through a tube- like instrument, without an open surgical incision. (47)

**Epilepsy** - any of various disorders usually manifest by episodes of loss or clouding of consciousness or control, based on disturbed electrical activity of the brain, including grand mal, petit mal or partial complex seizures. (17)

**Episodic disorders** - recurring abnormal body conditions usually interfering with awareness or normal body control, such as cardiac arrhythmia, Meniere's disease, narcolepsy, etc. (17,20,21,27,35)

**Essential functions** (of a job) - functional duties of a job such that failure in one or more of the elements would be cause for removal from the job. See Appendix II. (3,50)

## F

**Fatigue** - weariness from labor or exertion.

**Fistula** - an abnormal passage leading from a hollow organ to the body surface or from one organ to another. (29,47)

**Functional** - related to physiologic rather than structural functions, or related to psychological functions rather than organic structures. (13,41)

**Functional ability** - an individual's capability to accomplish work or other major life activities despite certain known limitations. (1)

## G

**Gastroenterology** - study of diseases and pathology of the stomach and intestines. (29)

**Genitourinary** (G.U.) - system of organs concerned with production and excretion of urine and with reproduction. (21,33)

**Gynecology** - branch of medicine that deals with the diseases and hygiene of women. (33)

## H

**Health care** - of, relating to, or concerned with maintaining and restoring health by the treatment and prevention of disease especially by trained and licensed professionals (as in medicine, dentistry, clinical psychology, and public health). Currently, this also includes podiatrists, chiropractors, physician assistants and nurse practitioners. (1)

**Heavy work:** See Work levels. (51)

**Hematology** - branch of medicine that deals with the blood and blood-forming organs. (23)

**Hematopoietic** - referring to the formation of blood or blood cells. (23)

**Hematuria** - presence of blood or blood cells in the urine. (31)

**Hemoptysis** - spitting of blood from some part of the respiratory tract. (19)

**Hernia** - protrusion of an organ or part through connective tissue or through a wall of a cavity in which it is normally enclosed; a rupture. (29,47)

**H.I.V.** - a retrovirus implicated as the agent causing the immunodeficiency in AIDS. (23)

**Hypertension** - abnormally high arterial blood pressure. (21)

**Hypersensitivity** - state of being abnormally susceptible to a specific agent, as a drug or antigen.

**Hypoglycemia** - abnormal decrease of sugar in the blood, usually occurring in diabetes as a consequence of using too much insulin for the person's food intake. (35)



## I

**Immunology** - study of the body's response to an antigen that involves the interaction of the antigen with lymphocytes that produce antibodies and lymphocytes capable of reacting with it and rendering it harmless. (23)

**Impairment** - loss, loss of use, or derangement of any body part, system or function, or mental or psychological disorder.

**Incontinence** - inability to retain bodily discharge (urine or feces) voluntarily. (29,31)

**Inflammation** - a local response to cellular injury that is marked by capillary dilatation, leucocytic infiltration, redness, heat, pain, swelling and often loss of function. (25,37)

**Insulin dependent** (diabetes) - diabetes not controlled by oral medications, but requiring injections of insulin to keep the blood sugar in satisfactory range. (35)

**Irritation** - a condition of soreness, roughness or inflammation of a body part. (37)

**Irritant** - something that tends to produce inflammation. (19,37)

## K

**Keloid** - a thick scar resulting from excessive growth of fibrous tissue. (37)

**Keratitis** - inflammation of the cornea of the eye characterized by burning or smarting, blurring of vision and sensitivity to light, caused by infectious or noninfectious agents. (25)

## L

**Levels of work** - definitions of the relative physical demands of various work activities. In these profiles, levels are defined in terms of increasing demands as sedentary, light, medium, and heavy. Additional limitations may be applied at each level. See Appendix III (3,51)

## M

**Major life activities** - functions such as caring for oneself, performing manual tasks, walking, seeing, hearing, speaking, breathing, learning and working. See Appendix II. (50)

**Malignant hypertension** - essential hypertension characterized by acute onset of severe symptoms, rapidly progressive course and poor prognosis. (21)

**Meniere's disease** - a disorder of the inner ear that is marked by recurrent attacks of dizziness, tinnitus, and deafness. (27)

**Metabolic** - referring to the chemical changes in living cells by which energy is provided for vital processes and activities and new material assimilated. (35,45)

**METS** - multiples of resting metabolic energy for a given activity, one MET being 3.5ML/(kg/min). (51)

**Miscarriage** - spontaneous expulsion of a human fetus before it is viable. (33, 34)

**Monocular** - involving or affecting a single eye. (25)

**Musculoskeletal** - relating to or involving both muscles and bony parts. (7,9,11,13)

## N

**Narrative** - a telling of details, or commentary.

**Neurology** - study of the nervous system in respect to structure, functions, abnormalities and diseases of the brain, spinal cord and peripheral nerves. (15)

**Nurse practitioner** - a registered nurse who has completed advanced training and is qualified to assume some of the duties formerly taken on by a physician. (1)

## O

**Obscuration device** - a covering over an eye to make the image from that eye dim or indistinct. (25)

**Ocular motility** - ability to control the movement of the eyes to direct gaze. (25)

**Oncology** - study and treatment of tumors. (23)

**Ophthalmology** - branch of medicine dealing with the structures, functions and diseases of the eye. (25)

**Orthotic** - a support or brace for weak or ineffective joints or muscles. (7,9,11,13)

**Otolaryngology** - a medical specialty concerned especially with the ear, nose and throat. Also called otorhinolaryngology. (27)

## P

**Parkinson's disease** - a chronic, progressive nervous system disease of later life that is marked by tremor and muscle weakness and by a peculiar gait. (15)

**Peripheral visual field** - See Visual field. (25)

**Peristalsis** - successive waves of involuntary contraction passing along the walls of the intestine or other hollow muscular structure and forcing its contents onward. (2,50)

**Physiatrist** - a physician who specializes in physical medicine.

**Physician assistant** - a specially trained person who is certified to provide basic medical services, usually under supervision of a licensed physician; abbr. P.A. See Health care. (1)

**Placental abnormalities** - disordered structure or function of the vascular organ that unites the fetus to the maternal uterus and mediates its metabolic exchanges. (33)

**Podiatry** - the care and treatment of the human foot, called also chiropody. (1)

**Pneumoconiosis** - disease of the lungs caused by habitual inhalation of irritant mineral or metallic particles, including black lung and silicosis. (19)

**Pre-menstrual syndrome (P.M.S.)** - a varying group of symptoms manifest in some women prior to menstruation that may include emotional instability, irritability, insomnia, fatigue, anxiety, depression, headache, edema, and abdominal pain. (33)

**Profile** - a representation of the extent to which an individual or group exhibit traits as determined by tests or ratings.

**Prosthetic** - relating to an artificial device to replace a missing part of the body. (7,9,11)

**Psychosis** - a serious mental illness, characterized by defective or lost contact with reality, often with hallucinations or delusions. (41)

**Pulmonary** - relating to, functioning like, associated with, or carried on by the lungs. (19)

**Psoriasis** - chronic skin disease characterized by circumscribed red patches covered with white scales. (37)

**Pyuria** - presence of pus in the urine. (31)

## R

**Reasonable accommodation** - accommodation that does not result in undue cost or hardship to the employer. See Accommodation and Appendix II. (3,50)

**Rectal** - referring to the terminal part of the intestinal tract, between the end of the large intestine and the anus. (29)

**Rehabilitation** - physical restoration of a sick or disabled person by therapeutic measures and reeducation to allow participation in the activities of a normal life within limitations of his physical or mental impairment. Vocational rehabilitation focuses on the goal of gainful employment. (2,50)

**Renal disease** - disorder involving or affecting the kidneys. (31)

**Retroperitoneal space** - the space between the posterior abdominal wall and the thin covering which contains the kidneys, pancreas, aorta and other structures. (29,47)

**Rhinitis** - inflammation of the mucous membranes of the nose. (27)

## S

**Sign** - an objective evidence of disease, especially as observed and interpreted by the physician rather than by the patient or lay observer.

**Social Security disability determination** - an administrative medical and social evaluation of a person's "inability to engage in any substantial gainful work." This includes an appraisal not only of medical or psychological conditions, but also the person's age, education, work experience and availability of work of a sort he might do in his area. In a sense, it represents the converse of a medical functional ability profile except where the profile level 10 (no work) is appropriate. (2,50)

**Stamina** - staying power, endurance.

**Stoma** - an artificial permanent opening, especially in the abdominal wall made as part of a surgical procedure. (29,47)

**Substance abuse** - use of a variety of potentially impairing things in such a way as to produce demonstrated episodes of impairment of cognitive, emotional, or motor functioning. (43)

**Substantial** - real or true, not imaginary or illusionary, as in restrictions under which a person can perform a major life activity, such as work, as compared to the average person. See Appendix II. (50)

**Suprapubic** - referring to the area just above the inferior element of the pelvis or above where the pubic bones meet.

**Sympathetic (nervous system)** - the part of the nervous system concerned especially with preparing the body to react to situations of stress or emergency. (7,11)

**Symptom** - subjective evidence of disease or physical disturbance observed by the patient. See Sign.

**Syncope** - a partial or complete temporary suspension of respiration and circulation, usually with cerebral ischemia, characterized by sudden pallor, coldness of the skin, and partial or complete unconsciousness. (17,21)

## T

**Teratogen** - an agent related to or causing developmental malformations in the fetus. (33)

**Toxemia of pregnancy** - a disorder peculiar to pregnancy, usually of sudden onset, and marked by hypertension, albuminuria, edema, headache, and visual disturbance, and which may be accompanied by convulsions. (33)

## U

**Ulcer** - a break in skin or mucous membrane with loss of surface tissue.

**Ulcerative colitis** - inflammatory disease of the colon characterized by diarrhea with discharge of mucus and blood, cramping abdominal pain, and inflammation and edema of the mucous membrane with patches of ulceration. (29)

**Urethra** - the canal that carries off the urine from the bladder and in the male serves as a genital duct. (31)

**Urinary calculus** - a concretion of mineral occurring in any portion of the urinary tract; also called kidney stone. (31)

**Utah Medical Association** - a voluntary association of physicians in the state of Utah whose purpose is to improve the quality of care for patients and represent the interests of its physician members. It is an affiliate of the American Medical Association.

## V

**Vertigo** - a disordered state which is associated with various disorders (as of the inner ear) and in which the individual or his surroundings seem to whirl. (27)

