

Functional disability:

Health-related factor for workers with a *Musculoskeletal Disorder (MSD) – back pain*

Interpretation:

Functional disability has a negative impact on return to work and can prolong the duration of absence of workers with a MSD (back pain).

Proposed measurement tool (★★★):

Oswestry Disability Index (ODI) – 10 items (Fairbanks et al., 2000).

Intended Workers:

This tool was developed to assess workers with back pain only.

Caution:

This factor can only be evaluated by accredited professionals. Venturing into the evaluation of this factor is therefore prohibited. If you suspect that this factor may be involved, you must rely on the professionals in question. Self-administration or the administration of a questionnaire by an unqualified person may lead to undesirable consequences such as the calculation of erroneous scores and the misinterpretation of results that may result.

However, the elements (items or portion of interview) constituting this tool can provide additional information to other return to work actors or stakeholders, such as the actors from the organization (employer, human resources, supervisor, union representative, etc.). This allows for a better understanding of what the factor implies, which in turn can help to target some more specific elements or needs that would require (1) a possible intervention (using an accredited professional) or (2) adjustments of the organization, especially in terms of prevention.

Oswestry Disability Index (ODI) - version 2.1a

Could you please complete this questionnaire? It is designed to give us information as to how your back (or leg) trouble has affected your ability to manage in every day life. Please answer every section. Mark one box only in each section that most closely describes you today.

SECTION 1--Pain Intensity ☐ I have no pain at the moment. ☐ The pain is very mild at the moment. ☐ The pain is moderate at the moment. ☐ The pain is fairly severe at the moment. ☐ The pain is very severe at the moment. ☐ The pain is the worst imaginable at the moment.	SECTION 6 – Standing ☐ I can stand as long as I want without extra pain ☐ I can stand as long as I want but it gives me extra pain. ☐ Pain prevents me from standing for more than 1 hour. ☐ Pain prevents me from standing for more than 1/2 hour. ☐ Pain prevents me from standing for more than 10 minutes. ☐ Pain prevents me from standing at all.
SECTION 2--Personal Care (washing, dressing, etc.) ☐ I can look after myself normally without causing extra pain. ☐ I can look after myself normally but it is very painful. ☐ It is painful to look after myself and I am slow and careful. ☐ I need some help but manage most of my personal care. ☐ I need help every day in most aspects of self-care. ☐ I do not get dressed, wash with difficulty and stay in bed.	SECTION 7--Sleeping ☐ My sleep is never disturbed by pain ☐ My sleep is occasionally disturbed by pain. ☐ Because of pain I have less than 6 hours sleep. ☐ Because of pain I have less than 4 hours sleep. ☐ Because of pain I have less than 2 hours sleep. ☐ Pain prevents me from sleeping at all.
SECTION 3—Lifting ☐ I can lift heavy weights without extra pain. ☐ I can lift heavy weights, but it gives extra pain. ☐ Pain prevents me from lifting heavy weights off the floor, but I can manage if they are conveniently positioned, e.g. on a table. ☐ Pain prevents me from lifting heavy weights, but I can manage light to medium weights if they are conveniently positioned. ☐ I can lift only very light weights. ☐ I cannot lift or carry anything at all.	SECTION 8--Sex Life (if applicable) ☐ My sex life is normal and causes no extra pain. ☐ My sex life is normal, but causes some extra pain. ☐ My sex life is nearly normal but is very painful. ☐ My sex life is severely restricted by pain ☐ My sex life is nearly absent because of pain. ☐ Pain prevents any sex life at all.
SECTION 4 –Walking ☐ Pain does not prevent my walking any distance. ☐ Pain prevents me walking more than 1 mile (1.6 km). ☐ Pain prevents me walking more than 1/4 mile (0.4 km). ☐ Pain prevents me walking more than 100 yards (91 m). ☐ I can only walk using a stick or on crutches. ☐ I am in bed most of the time and have to crawl to the toilet.	SECTION 9—Social life ☐ My social life is normal and gives me no extra pain. ☐ My social life is normal but increases the degree of pain. ☐ Pain has no significant effect on my social life apart from limiting my more energetic interests, e.g. sport, etc ☐ Pain has restricted my social life and I do not go out as often. ☐ Pain has restricted social life to my home. ☐ I have no social life because of pain.
SECTION 5—Sitting ☐ I can sit in any chair as long as I like. ☐ I can sit in my favorite chair as long as I like. ☐ Pain prevents me sitting more than 1 hour. ☐ Pain prevents me from sitting more than 1/2 an hour. ☐ Pain prevents me from sitting more than 10 minutes. ☐ Pain prevents me from sitting at all.	SECTION 10--Traveling ☐ I can travel anywhere without pain. ☐ I can travel anywhere but it gives me extra pain. ☐ Pain is bad but I manage journeys over two hours. ☐ Pain restricts me to journeys of less than one hour. ☐ Pain restricts me to short necessary journeys under 30 minutes. ☐ Pain prevents me from travelling except to receive treatment.

Scoring instructions

Each item has different response options on a 6-point Likert scale, generally ranging from "no limitation" = 0 to "maximum limitation" = 5 (total score: 0-100).

The sum of the scores for the 10 items ranges from 0 to 50. Then, the Oswestry Disability Index (ODI) is calculated as a percentage using the following formula:
 $(\text{Score} \times 100) / 50$.

Interpretation of scores

A higher score indicates greater functional disability, which has a negative impact on RTW.

The author of the original version of the tool suggests this interpretation, although it has not been validated: 0 - 20% = Minimal disability; 21 - 40% = Moderate disability; 41 - 60% = Severe disability; 61 - 80% = Major disability; 81 - 100% = Total disability (bedridden or exaggerates symptoms).

Clinically significant change: Clinical improvement over time. If, for example, at the start of treatment the score is 12 and at the end the score is 2 (10 points of improvement), we would calculate an 83% $(10/12 \times 100)$ improvement. Given that a difference of 30% is considered clinically significant, this improvement would be considered very significant (Ostelo et al., 2008).