Clinical Framework
For the Delivery of Health Services
Contents

1 Foreword
2 Purpose Principles Expectations
3 Principle One
   Measure and demonstrate the effectiveness of treatment
6 Principle Two
   Adopt a biopsychosocial approach
9 Principle Three
   Empower the injured person to manage their injury
13 Principle Four
   Implement goals focused on optimising function, participation and return to work
15 Principle Five
   Base treatment on best available research evidence
17 Glossary of Terms

WorkSafe Victoria is a trading name of the Victorian WorkCover Authority.

The information presented in the Clinical Framework for the Delivery of Health Services is intended for general use only. It should not be viewed as a definitive guide to the law, and should be read in conjunction with the Transport Accident Act 1986 (Transport Accident Commission) and the Accident Compensation Act 1985 (WorkSafe Victoria).

Whilst every effort has been made to ensure the accuracy and completeness of the Clinical Framework, the advice contained herein may not apply in every circumstance. Accordingly, the TAC and WorkSafe Victoria cannot be held responsible, and extends no warranties as to:
- the suitability of the information for any particular purpose; and
- actions taken by third parties as a result of information contained in the Clinical Framework for the Delivery of Health Services

This publication is protected by copyright. The TAC and WorkSafe Victoria encourages the free transfer, copying and printing of this publication if such activities support the purposes and intent for which the publication was developed.

This publication is current as at June 2012 and replaces and supersedes all previous versions of this publication.
The Clinical Framework is presented by

TAC Transport Accident Commission
WorkSafe Victoria

The Clinical Framework is supported by the following states and territories

Federal

ACT

New South Wales

Northern Territory

Queensland

South Australia

Tasmania

Western Australia

The Clinical Framework is supported by the following peak bodies and associations

Supported by:

Australian Osteopathic Association

Australian Physiotherapy Association

APS Australian Psychological Society

CAA

CAAVIC

Oca

Occupational Therapy Australia
The Transport Accident Commission (TAC) and WorkSafe Victoria (WorkSafe) are pleased to present the Clinical Framework for the Delivery of Health Services.

The Clinical Framework signifies the work of the Health Service Group (HSG), a collaboration between the TAC and WorkSafe, which builds on the strengths of each organisation to support healthcare professionals deliver the right care at the right time to individuals with a compensable injury.

The Clinical Framework outlines a set of guiding principles for the delivery of health services. These principles are intended to support healthcare professionals in their treatment of an injury through:

- Measurement and demonstration of the effectiveness of treatment
- Adoption of a biopsychosocial approach
- Empowering the injured person to manage their injury
- Implementing goals focused on optimising function, participation and return to work
- Base treatment on best available research evidence

In 2011, a review of the Clinical Framework was carried out to ensure the five guiding principles were in line with best practice and could be applied across a range of injury types.

As part of the review process, consultation was undertaken with clinical, academic and inter-jurisdictional representatives ensuring a common framework for the delivery of health services while clarifying expectations when treating an individual with a compensable injury.

This revised version of the Clinical Framework reflects the most contemporary approach to treatment and incorporates recent developments in evidence based practice and use of objective outcome measurement in clinical practice.

I would like to thank and acknowledge the members of the Inter-Jurisdictional and Clinical Framework Advisory Committees involved in the review process.

On behalf of the TAC and WorkSafe we look forward to working with you in delivering the principles of the Clinical Framework.

Clare Amies
Head
Health Services Group
Transport Accident Commission and WorkSafe Victoria
Purpose
The Clinical Framework has been established to:
- optimise participation at home, work and in the community, and to achieve the best possible health outcomes for injured people
- inform healthcare professionals of our expectations for the management of injured people
- provide a set of guiding principles for the provision of healthcare services for injured people, healthcare professionals and decision makers
- ensure the provision of healthcare services that are goal orientated, evidence based and clinically justified
- assist in the resolution of disputes

Principles
The Clinical Framework is a set of principles for the provision of health services to injured people.

1. Measure and demonstrate the effectiveness of treatment
2. Adopt a biopsychosocial approach
3. Empower the injured person to manage their injury
4. Implement goals focused on optimising function, participation and return to work
5. Base treatment on the best available research evidence

Expectations
All healthcare professionals providing services to injured people as part of transport accident or workers compensation schemes are expected to adopt these principles within the standards and boundaries of their professional expertise. The principles apply to all compensable injuries regardless of their severity. Healthcare professionals are also expected to adhere to documentation and record keeping standards as required by their relevant professional body.

As part of implementing the Clinical Framework, it is expected that healthcare professionals will communicate with others and work with other healthcare professionals when it is in the interests of the injured person.
Principle One

Measure and demonstrate the effectiveness of treatment

Key messages

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Treatment should result in a measurable benefit to the injured person.</td>
</tr>
<tr>
<td>2</td>
<td>Relevant aspects of the person's health status that are expected to change with treatment should be measured (such as pain, depression, activities of daily living, health-related quality of life and work performance).</td>
</tr>
<tr>
<td>3</td>
<td>When available, outcome measures that are reliable, valid and sensitive to change should be used.</td>
</tr>
<tr>
<td>4</td>
<td>Outcome measures must be related to the functional goals of therapy, relevant to the person's injury, and address the components of the World Health Organisation International Classification of Functioning, Disability and Health.</td>
</tr>
</tbody>
</table>

Why measure

A health outcome is the impact of an intervention on a person's health.

The measurement of treatment effectiveness (or outcome):

- provides injured people, treating healthcare professionals, and other decision makers with information on the rate (and direction) of change (e.g. is the person's health status improving, worsening or not changing?)
- empowers an injured person to track and monitor their progress or any changes in their status
- informs and justifies decisions to continue, change or cease treatment, or refer the injured person to another healthcare professional or service
- provides useful information that can assist in targeting treatment and help improve treatment outcomes.

How to measure

Treatment effectiveness should be measured with standardised outcome measurement tools that are reliable, valid and sensitive to change. This is a robust way to gauge an injured person's health status. Standardised outcome measures may be supplemented with customised measures of aspects of health or function that are relevant to the injured person and their status. However, as the reliability, validity and responsiveness of customised outcome measures are generally not known, these should only be used when there is no suitable standardised measure available, or in addition to a standardised measure.
The following are examples of customised outcome measures that can demonstrate the effectiveness of an intervention:

- a change in work status – a person who was off work starts to return to work or there is a change in their work capacity. For example, an increase in hours at work, progress from sitting for 10 minutes to 30 minutes, or a move from modified to normal duties.

- a change in participation at home - measurable improvement with specific household tasks. For example, going from vacuuming one room in a day to vacuuming three rooms in a day.

**When to measure**

Baseline outcome measurements should be taken as soon as possible and repeated regularly to review progress. Reassessment should occur as soon as change could be reasonably expected given the injured person’s injury, prognosis, and the type of treatment provided. During the acute phase, when rapid change may be expected, reassessment may occur as often as weekly, or even within a session.

The regular measurement of outcomes provides ongoing information about the injured person’s health status and the effectiveness of the intervention. This process plays an integral role in justifying the healthcare professional’s management plan. It also helps to inform the injured person about their progress, recovery and independence.

**What to measure**

Outcome measures must be related to the functional goals of therapy and relevant to the person’s injury. They should also address the participation, activity and body structures and function components of the World Health Organization International Classification of Functioning, Disability and Health. The ICF provides a clear description of health and health-related states to promote effective communication between healthcare professionals.

---


The table below provides a description of the components of the ICF and their measurement principles, including their specific impact on health and functioning. Some outcome measurement tools cover more than one component of the ICF.

### Table 1: Components of the ICF

<table>
<thead>
<tr>
<th>ICF component</th>
<th>Definition</th>
<th>Impact on health and functioning</th>
<th>Measurement principles</th>
</tr>
</thead>
</table>
| **Body functions and body structures** | **Body functions** are the physiological and psychological functions of the body.  
**Body structures** are anatomical parts of the body such as organs and limbs. | Problems in body functions and body structures result in impairments such as pain, altered mood, restricted range of joint motion, swelling, ligament tear. | Measures of impairments should not be used in isolation since impairments do not necessarily indicate how the injury is affecting the injured person's function, behaviour and return to work. |
| **Activity**                  | **Activity** is the execution of a task or action, such as walking, driving or cleaning. | Activity limitations are difficulties a person may have in performing activities.                  | Measures of activity present a clear picture of progress in function, change in behaviour and work. |
| **Participation**             | **Participation** is involvement in a life situation such as work.          | Participation restrictions are problems a person may have in taking part in life situations.       | Measures of participation present a clear picture of progress at home, work and in the community. |
| **Personal and environmental factors** | **Personal factors** are internal influences such as beliefs, self efficacy and ways of coping.  
**Environmental factors** make up the physical, social and attitudinal environment in which people live their lives. | Personal factors refer to the impact of the person's attributes on their health and functioning.  
Environmental factors are features of physical, social and attitudinal surroundings that can facilitate or hinder health and functioning. | Measures of personal and environmental factors should be used to:  
(i) identify potential risk factors for the development of persistent pain or long-term disability  
(ii) evaluate progress and outcomes. |
Principle Two
Adopt a biopsychosocial approach

Key messages

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Healthcare professionals must consider the biological, psychological and social factors that influence a person’s health as part of their assessment and treatment interventions.</td>
</tr>
<tr>
<td>2</td>
<td>A biopsychosocial approach improves function, facilitates recovery and maximises independence, while minimising the risk of long-term activity limitation, participation restriction, or persistent pain.</td>
</tr>
<tr>
<td>3</td>
<td>The early identification and management of risk factors helps to address issues that can impact on an optimal outcome.</td>
</tr>
</tbody>
</table>

A healthcare professional adopts a biopsychosocial approach when he/she considers the biological, psychological and social determinants of health during the assessment and treatment of an injured person. For example, the healthcare professional treats the injured tissue or mental health problem, and also assesses whether the person has psychosocial risk factors that may hinder recovery. These could include unhelpful beliefs, issues with their work situation and other barriers to returning to work.

A biopsychosocial approach is based upon the management of the multiple factors that can affect function and participation at home, work and in the community. The WHO International Classification of Functioning, Disability and Health reflects a biopsychosocial approach.

Current evidence indicates that the biopsychosocial approach to injury management is effective in improving function, facilitating recovery and maximising independence.

Early phase of injury management

Early injury management should focus on educating the injured person about their injury, reassuring them about the natural history of the injury, and emphasising the importance of early participation in home, work and community life despite the injury. By focusing on these areas early in the management of an injury, there is reduced risk of developing long-term activity limitations, participation restrictions and persistent pain.

Identifying risk factors

The early identification of risk factors across the biological, psychological and social domains is important during the assessment phase as it informs and guides treatment. Poor or delayed outcomes from an injury can sometimes be explained by biological factors, such as serious medical complications or conditions. However, psychosocial risk factors (including unhelpful beliefs about an injury, job dissatisfaction and low expectations about return to work) often contribute to poor outcomes for injured people.

Risk factors can be classified according to the flags model, which describes the factors that can impede recovery and independence.
| Biological Factors | Red Flags | Serious pathology  
| Other serious medical conditions  
| Failure of treatment |
| Mental Health factors | Orange Flags  
| Mental health disorders  
| Personality disorders |
| Psychological Factors | Yellow Flags  
| Unhelpful beliefs about injury  
| Poor coping strategies  
| Passive role in recovery |
| Social Factors | Blue Flags  
| Low social support  
| Unpleasant work  
| Low job satisfaction  
| Excessive work demands  
| Non-English speaking  
| Sense of injustice  
| Problems outside of work |
| Other Factors | Black Flags  
| Threats to financial security  
| Litigation  
| Compensation thresholds |

Flags or risk factors can be identified by healthcare professionals using standardised risk assessment tools or through comprehensive history taking in the assessment phase. To ensure flags are addressed early, there are several questions the treating healthcare professional should ask themselves and the injured person:

- What factors are becoming a barrier and are preventing the injured person from improving their function, participating at home, work or in the community today?
- How can these barriers be addressed?
is the current treatment having the expected effect on the injured person’s health, function, participation at home, work and in the community?
- would other healthcare professionals, health services (such as multidisciplinary services) or evidence-based treatments improve the injured person’s rate of recovery?

Developing a treatment plan to address these biological, psychological and social risk factors, and shape behaviour, is an important aspect of effectively preventing or managing persistent pain, activity limitation and participation restriction. It is also important to monitor flags or risk factors and adjust the treatment plan as an injured person’s experiences change. Some psychosocial factors cannot be changed, but a person’s perceptions and responses may be amenable to positive change. An effective biopsychosocial approach is usually based on good communication among stakeholders and often includes the involvement of multiple healthcare professionals.

The impact of personality and considerations for mental health professionals

Sometimes personality characteristics (such as obsessional traits) and poor coping styles add complexity to the provision of treatment and can impede an injured person’s progress. Considering these characteristics during the design of treatment plans, particularly psychology treatment plans, can help to reduce the risk of activity limitations, participation restrictions, persistent pain or chronic mental health problems. However, it must be remembered that before their injury the person had the same personality and coping style.

Generally, personality characteristics should not become the focus of treatment. The exception is where personality characteristics are associated with an ongoing lack of response to treatment or a high risk of relapse. In these instances referral to specialist mental health professionals or services should be considered.

Empower the injured person to manage their injury

Key messages

1. Empowering the injured person to manage their injury is a key treatment strategy and should be incorporated in all phases of injury management.

2. The main ways to empower an injured person are education, setting expectations, developing self-management strategies and promoting independence from treatment.

3. Healthcare professionals need to empower an injured person to actively participate in activities at home, work and in the community as part of their rehabilitation.

Education and setting expectations

Education, setting expectations and actively involving the injured person in their treatment is an important component of effective rehabilitation. The injured person is empowered when they:

- are educated about the:
  - respective roles of the injured person and the healthcare professional
  - nature of their injury, expected recovery timeframes and prognosis
  - importance of actively participating in activities at home, work and the community as part of rehabilitation
  - risks of prolonged inactivity
  - risks and benefits of the treatment proposed

- develop collaborative treatment goals and timeframes to achieve these goals with their healthcare professional

- have appropriate and effective self-management strategies (including the management of relapses)

- have a healthcare professional that does not encourage or reinforce dependence and instead supports independence from treatment when appropriate

- learn to manage their condition as independently as possible
For children or people with severe injuries, it is also important that healthcare professionals empower carers and family members to support the injured person to be as independent as possible.

Setting expectations about discharge from treatment should commence early in the treatment phase. While it may be difficult to know exactly how long it will take to achieve an optimal recovery, it is important to inform the injured person that when recovery plateaus, their needs will be reassessed to determine whether any ongoing intervention will assist in their participatory or functional status. A lack of understanding about this change can cause unnecessary frustration for an injured person at the natural conclusion of the rehabilitation phase.

**Influencing beliefs**

An injured person may have or develop restrictive or counter-productive beliefs leading to entrenched feelings of distress and behaviours that do not support recovery, independence and return to work. Restrictive beliefs can be a major obstacle to an injured person’s ability to participate in activities at home, work or in the community. These beliefs may include:

- **fear-avoidance**: Increased pain means I’ve made my injury worse, so I must avoid any activity that aggravates my pain
- **catastrophising**: My symptoms are severe and I will never be able to work again
- **lack of acceptance**: I need to get in control of my symptoms before I can think about anything else
- **low self-efficacy**: I can’t do any work because of my pain
- **blame**: It’s their fault and so I need a lot of time away from work
- **perception of injustice**: I was unfairly treated and will not improve until this is redressed

Education and motivational strategies can help an injured person to understand their injury and its management, make choices, challenge and overcome restrictive beliefs, and modify their behaviour, leading to improved functional outcomes. All healthcare professionals have a role to play in positively influencing beliefs. Some injured people may require more specialised psychological intervention to change beliefs about recovery. The following strategies may be useful in influencing restrictive beliefs:

- improving awareness of the beliefs and their negative impact
- reviewing and testing their accuracy
- generating alternative beliefs that are open to change
- reinforcing and practising alternative beliefs in everyday settings
- providing information such as written materials
Facilitating self-management

Self-management strategies are an essential part of any management plan. The injured person should be encouraged to take control of their rehabilitation and drive their recovery by using strategies to control their symptoms and learning to function despite their symptoms. The following are examples of individually tailored self-management strategies. Some options may require training from a specialist healthcare professional:

- collaborative goal setting
- activity scheduling
- observing, monitoring and challenging restrictive beliefs
- problem solving
- pacing strategies to minimise risk of relapse
- homework
- relaxation techniques
- ergonomics
- use of equipment
- exploration and management of potential barriers to recovery
- a regular exercise program
- managing medication use
- establishing a healthy and consistent sleeping routine
- learning acceptance of the injury
- exposure-based approaches to feared and/or avoided situations
- planned reduction in treatment frequency to support the development of self-management skills

As recovery progresses active strategies that support self-management and independence should increase, and passive strategies (such as, supportive counselling or hands-on treatment) that require intervention by a healthcare professional should decrease.
Managing relapses

An exacerbation of symptoms or a relapse of a previous injury may be triggered by unaccustomed or overly vigorous physical activity, for example lack of pacing, or stressful life events. For people with persistent pain or a psychological injury, relapses are common. Treating healthcare professionals need to educate injured people to expect relapses and understand the reasons why they occur. They should provide injured people with strategies to manage these episodes. In addition to the self-management strategies above, useful strategies for relapses include:

- reassurance that relapses are possible and, in the case of persistent pain, common
- awareness of triggers and encouragement to adopt coping strategies early to avoid the escalation of stress, pain or other symptoms
- written plans about how to implement self-management steps during relapses
- communication with significant others, such as family, co-workers, employers and medical practitioners, about their role in helping the injured person to manage relapses.

Sometimes injured people present with health problems that are unrelated to the compensable injury. Treating healthcare professionals should aim to identify and, as far as possible, separate issues that are not directly related to the compensable injury. They should also advise the injured person about options for the assessment and treatment of these unrelated issues.

Independence from treatment

The key measure of treatment effectiveness is the ability of the injured person to manage their condition as independently as possible and participate in activities at home, in the community and at work. Independence does not mean being symptom free, but rather living a functional and productive life while self-managing symptoms if they arise. Failure to empower an injured person to become independent may result in dependency on treatment, which reinforces illness behaviour and can lead to persistent pain or long-term disability.

By following a biopsychosocial approach and the principle of empowerment, health professionals, families and other key parties (such as employers), can support injured people to become independent in their health and injury management.
Principle Four

Implement goals focused on optimising function, participation and return to work

Key messages

1. Goals should be developed in collaboration with, and agreed to by, the injured person.
2. Goals should be functional and SMART - specific, measurable, achievable, relevant and timed.
3. Progress towards goal achievement should be regularly assessed and goals reset or modified as necessary.

Setting goals

At the beginning of treatment, the healthcare professional should develop goals in collaboration with the injured person. The treatment selected to achieve the goals should also be determined in conjunction with the injured person. Current evidence suggests that where the injured person has a role in selecting treatment, better health outcomes are achieved.

Goals should focus on measurable improvements in function and participation at home, work and in the community. Goals should be SMART: specific, measurable, achievable, relevant and timed.

<table>
<thead>
<tr>
<th>S</th>
<th>SPECIFIC</th>
<th>Names the particular variable of interest. For example, distance able to walk, hours at work on modified duties, social outings with friends.</th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>MEASURABLE</td>
<td>Has a measurement unit (metres, hours, 0-10 scale).</td>
</tr>
<tr>
<td>A</td>
<td>ACHIEVABLE</td>
<td>Likely to be achieved given the diagnosis and prognosis for the person’s injury and any environmental constraints.</td>
</tr>
<tr>
<td>R</td>
<td>RELEVANT</td>
<td>Relevant or important to the injured person and other stakeholders.</td>
</tr>
<tr>
<td>T</td>
<td>TIMED</td>
<td>Timeframe within which the goal is expected to be achieved.</td>
</tr>
</tbody>
</table>

The effectiveness of treatment should be regularly assessed and progress toward goals recorded and communicated with the injured person. Treatment goals should be modified as they are achieved or if circumstances change, or significant barriers are identified. When measurable improvement is slow or absent, the cause/s should be identified and, where necessary, expectations in relation to recovery should be adjusted. It may be appropriate to reset goals, implement an alternative treatment plan, recommend the injured person be referred to another healthcare professional or service, or develop a discharge plan.
Healthcare professionals should actively support an integrated and collaborative approach which promotes common goals and communication about these goals between all parties.

Why are improvements in impairments not included in the goals?

Improvement in impairments, for example pain or depression scale scores, muscle strength and joint range of motion, may be measured as appropriate (see Principle 1). However, the ability to undertake everyday activities is influenced not only by impairments, but by environmental and personal factors. Goals that are focussed on function set a more meaningful and holistic target to work towards than goals focussed on impairments.

Examples of poorly constructed treatment goals:

<table>
<thead>
<tr>
<th>Examples of poorly constructed treatment goals:</th>
<th>Examples of SMART goals:</th>
</tr>
</thead>
<tbody>
<tr>
<td>To return to work</td>
<td>To return to work in two days on modified duties with a lifting capacity of up to 5 kilograms.</td>
</tr>
<tr>
<td>To improve driving confidence</td>
<td>To be able to drive between home and work (15 kilometres) within three weeks.</td>
</tr>
<tr>
<td>To improve activities of daily living</td>
<td>Independently manage preparing breakfast three mornings per week within four months.</td>
</tr>
<tr>
<td>To reduce depression</td>
<td>To be able to concentrate on reading for 30 minutes four days per week within one month.</td>
</tr>
</tbody>
</table>

Return to work and goal setting

There is increasing evidence that work is generally good for an injured person’s health and wellbeing and that ‘long-term work absence, work disability and unemployment have a negative impact on health and wellbeing’. Healthcare professionals need to recognise the health benefits of work and support injured people to stay at work or return to work as soon as it is safe to do so. The evidence also supports the value of returning to, or staying at, work as part of a person’s rehabilitation and not just as the end point of rehabilitation.

Goals related to returning to work are therefore important to optimise an injured person’s health outcomes. These goals may be set in collaboration with the injured person, healthcare professional, employer, and other stakeholders as required. Goals may include increasing hours at work, changing duties at work, or attending team meetings or work functions. When returning to work is a long-term goal, healthcare professionals may also consider supporting injured people to participate in other activities outside of work to build their capacity in the short term. These activities could include increased household duties, scheduling more activities in the day, or volunteer work.

Not all goals have to be related to return to work. Return to work may not be a realistic goal or there may be insurmountable barriers to return to work. In these circumstances treatment is clinically justified when it promotes independence, improves function and participation, or demonstrably prevents the person from significantly deteriorating from their current level of function.

1 Australasian Faculty of Occupational and Environmental Medicine 2011, Position Statement: Realising the Health Benefits of Work, Australasian Faculty of Occupational & Environmental Medicine, Sydney, p. 22.

Principle Five
Base treatment on the best available research evidence

Key messages

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Healthcare professionals need to use the best available research evidence to inform their decision making.</td>
</tr>
<tr>
<td>2</td>
<td>Systematic reviews provide the most comprehensive and unbiased source of research evidence.</td>
</tr>
<tr>
<td>3</td>
<td>A high quality, randomised, controlled trial is the strongest research design for evaluating treatment efficacy.</td>
</tr>
<tr>
<td>4</td>
<td>Treatments with good evidence for efficacy are preferred over other treatments.</td>
</tr>
<tr>
<td>5</td>
<td>Where there is good evidence that treatment lacks efficacy, it should not be used.</td>
</tr>
</tbody>
</table>

Treatment needs to be informed by the best available and highest level research evidence. Using the best available research evidence to develop a treatment plan optimises an injured person’s health outcomes. It also:
- ensures treatment is offered that has the best chance of success
- avoids treatment that is likely to be ineffective or harmful
- increases the likelihood that treatment complements and assists other evidence-based medical and allied healthcare treatments that the injured person is likely to access

Levels of evidence
Systematic reviews of research evidence are now available on the efficacy of many treatments and decision making must be directed by this evidence. Evidence-based clinical practice guidelines can be useful to refer to for specific conditions and other evidence summaries may also be available. Where evidence summaries are not available, or are out of date, high quality individual studies can provide some guidance for treatment decision making. A high quality, randomised, controlled trial is the strongest research design for evaluating treatment efficacy.

The National Health and Medical Research Council (NHMRC), evidence hierarchy ranks study designs in order of the confidence with which they are able to answer questions about treatment efficacy: ¹

- **Level I** A systematic review of Level II studies
- **Level II** A randomised, controlled trial
- **Level III** i. A pseudo-randomised, controlled trial
  ii. A comparative study with concurrent controls
  iii. A comparative study without concurrent controls
- **Level IV** Case series with either post-test or pre-test/post-test outcomes
How to use research evidence

Healthcare professionals will have a preference for treatment that is based on their training, clinical experience and the specific needs of the injured person. Preferences for treatment need to be continually reviewed so that they are in line with the best available evidence.

Research evidence can only be generalised to people like those who were included in the clinical trials. For example, interventions generally have different effects when tested on people with acute and chronic back pain.

Treatments:
- with good evidence for effectiveness are preferred over those without evidence
- with good evidence of no effectiveness should not be used
- without sufficient evidence of effectiveness may be used when there is no other treatment of proven effectiveness.

Research evidence quantifies the average effect of an intervention on a group of people compared to an alternative treatment, placebo, or no treatment. Individuals will have a response to treatment that may be larger or smaller than the average response. For this reason, and because sometimes there is not sufficient evidence available on a particular treatment, healthcare professionals must use appropriate outcome measures to monitor each person’s response to treatment.

Where to find the best available research evidence

- The Cochrane Library of systematic reviews is freely available online.
- PubMed is the largest free online abstracting database with millions of citations.
- Online evidence databases are also available for individual disciplines:
  - Physiotherapy (PEDro)
  - Occupational Therapy (OT seeker)
  - Speech Pathology (speech BITE)
  - Chiropractic (Chiroindex)
  - Psychological Database for Brain Impairment Treatment Efficacy (PsycBITE)
- Many clinical practice guidelines are available online, for example, from the NHMRC Clinical Practice Guidelines Portal.
  - worksafe.vic.gov.au
  - tac.vic.gov.au

Glossary of Terms

**Activity scheduling**
A basic cognitive-behavioural technique that involves scheduling incrementally and in advance daily pleasant activities, as well as activities which involve a sense of mastery and satisfaction.

**Catastrophising**
A behavioural response characterised by a person dramatically exaggerating the negative possibilities in situations, and feeling helpless about them.

**Customised outcome measures**
Ad hoc measurement methods devised by the treating healthcare professional where the reliability, validity and sensitivity to change of the measure are generally not known. Customised outcome measures should relate to an injured person's treatment goals, be functional, objective and measurable. For example, a customised outcome measure may describe how often (once a day, several times a day) or how far (50 metres, 100 metres) a person is able to walk in different environments.

**Fear avoidance**
A behavioural response to pain characterised by a person excessively restricting involvement in activities and exercises due to heightened fear or anxiety about pain or re-injury (i.e. worry that any pain could cause tissue damage).

**Homework**
Systematic and incremental practice of techniques, strategies or exercises carried out between treatment sessions.

**Injured person**
Any person who has a compensable transport accident or workplace injury.

**Pacing**
The rate at which an activity or movement proceeds. Pacing assists the person to plan activities in manageable steps that can support them to perform an activity successfully and may assist them to avoid relapses of their condition. A pacing strategy may include instructing the injured person to attend to household tasks over a prescribed period of time with specified breaks and then gradually decreasing the prescribed time and/or reducing the specified breaks. Pacing strategies are designed to gradually increase tolerance for activities and movement.
Pain
Acute pain is described as ‘an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage’.
Persistent or chronic pain lasts longer than three months. Persistent pain can persist after injuries heal and is usually the result of multiple biological and psychosocial factors. Neural pathways may become hypersensitive. Personality traits, mental health issues, restrictive beliefs and past experience can affect and reinforce the pain experience.

Personality
Enduring patterns of thoughts, feelings and behaviours that uniquely characterise an individual. Traditionally, personality researchers distinguish the statistically ‘normal’ range of personality characteristics from ‘maladaptive personality traits’ and ‘personality disorders’. The presence of the latter two in an injured person’s presentation can significantly impede treatment responsiveness and increase the risk of long-term disability. Assessing and reducing the impact of personality characteristics is a specialist area of practice.

Psychological injury
A term to describe a range of mental disorders resulting from a transport accident or workplace injury that may include conditions such as, depression, anxiety, adjustment disorder and post traumatic stress.

Self efficacy
The belief, and the ability to act on that belief, that one has the capacity to positively influence the course of events in life and successfully perform particular behaviours which are needed to produce particular outcomes.

Standardised outcome measures
Measures that are applied in a prescribed manner and for which reliability, validity and sensitivity to change are known.
Contacts

**WorkSafe Victoria**
222 Exhibition Street
Melbourne VIC 3000
Phone   (03) 9641 1444
Freecall 1800 136 089
Email   info@worksafe.vic.gov.au

**Transport Accident Commission**
60 Brougham Street
Geelong VIC 3220
Phone   1300 654 329
Freecall 1800 332 556
(inside Melbourne metro area)
Email   info@tac.vic.gov.au

**WorkSafe Victoria Agents**
A full list of WorkSafe Victoria Agents can be found at worksafe.vic.gov.au/agents

WorkSafe Agents are organisations appointed by WorkSafe to manage employers’ WorkSafe injury insurance policies and injured workers’ compensation claims’.