



# DBC

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## Back & Neck Program



Back and neck rehabilitation

# Enrolling your patients in the DBC Back & Neck Program



## **Dear Doctor,**

You'll be pleased to learn that Namibia Health Risk Solutions (NHRS) has been licensed as a Managed Care Company, to introduce a back and neck functional restoration program for patients who suffer from chronic and debilitating back and neck pain.

NHRS makes use of the DBC system, which has been implemented in clinics worldwide with well documented results. The focus of the DBC treatment is on both physical conditioning of the musculoskeletal system and addressing the psychological aspects of chronic back and neck pain.

If evidence-based guidelines and your judgment deem treatment necessary, please refer eligible patients to the NHRS Centre at Omuramba Day Clinic. The DBC trained clinical staff will then assess the patient and discuss the treatment options with you and them.



## After the assessment at the DBC Centre, the following will happen:

- Patients will, where logistically possible, be enrolled in the DBC functional restoration program, if inclusion criteria are met.
- If an operation is required, the clinical staff will advise accordingly.
- Emergency surgical cases will not require a DBC referral or an assessment.

To assist you in decision-making, we have pleasure in including DBC back and neck management algorithms.

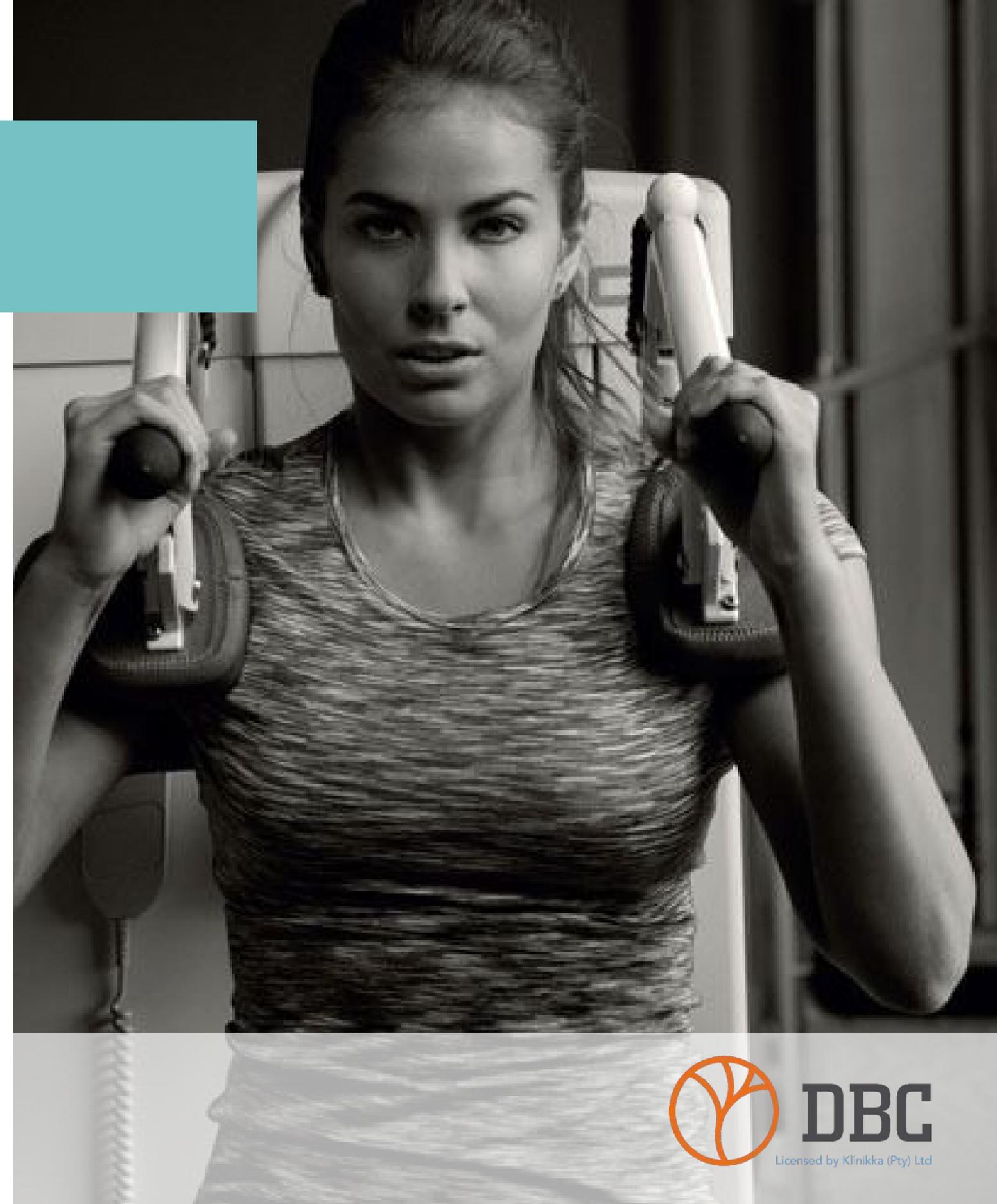
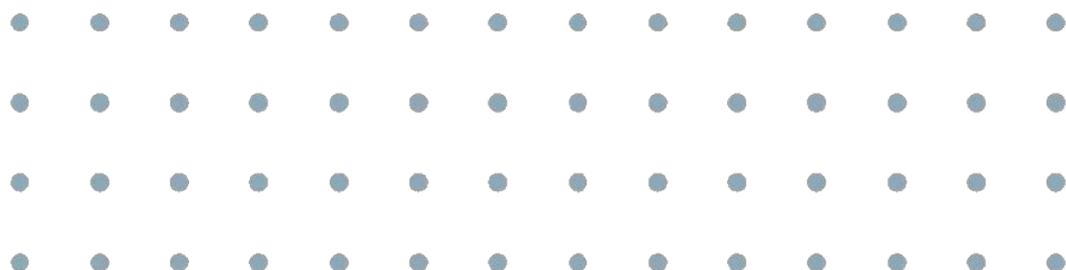
### **The DBC Clinic is located at:**

Omuramba Medical Centre, Unit 3  
39 General Murtala Muhammed Rd  
Eros, Windhoek,  
(next to the Omuramba Day Theatre)

## For more information

For further information please contact the NHRS call center on **061-447100** or via email: **info@nhrs.com.na**  
You may also visit **www.nhrs.com.na**

We look forward to your cooperation and support in our attempts to improve the health of the Namibian community. If you need more information on enrolling your patients in the Back and Neck program, please contact the NHRS offices on the above number or by email.





## PROGRAM DOCUMENTATION BASED CARE (DBC)

### **Management Algorithm**

'When low-back pain becomes chronic and disability more ingrained, an intensive interdisciplinary treatment approach is required because these patients have complex needs and requirements, and because of the deleterious effects of physical deconditioning ... thus, this stage of treatment is much more complex and demanding of healthcare professionals working independently. Consequently the strengths of multiple providers and coordinated systems to address the complex issues confronting patients disabled by chronic low-back pain are greatly needed.' – Gatchell and Bruga

A black and white photograph of a woman with her hair in a ponytail, wearing a dark tank top and shorts, performing a pull-up exercise on a gym machine. She is looking upwards and to the right. The machine has two horizontal bars above her.

## PROGRAM DOCUMENTATION BASED CARE (DBC)

The Documentation Based Care (DBC) treatment concept is applied at clinics worldwide in the treatment and management of back and neck conditions that often involve prolonged and severe pain.

If patients carry out exercises intensively enough, their trunk control, muscle endurance, strength and range of motion improve. So does their mood, thanks to the reduction of fear and dispelling of misconceptions. Benefits extend even to the most severe cases.

Two key elements are combined in DBC functional rehabilitation programs: progressive physical conditioning and cognitive behavioral treatment.

# PROGRAM DOCUMENTATION BASED CARE (DBC)

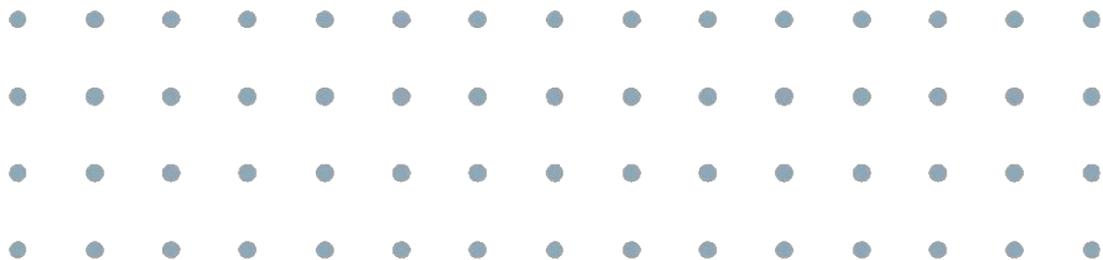
## Evaluation

The contents and duration of the programs depend on the severity of pain, the severity of deconditioning, psychological profile and social needs. These are assessed with validated questionnaires and measurements – not only to define patients' needs, but also to monitor progress and document outcomes.

The DBC treatment concept is translated into practice by a combination of assessment, treatment and outcome-monitoring protocols. These protocols are evidence-based.

## Treatment reports

Treatment and evaluation reports on progress are generated at baseline, three weeks (or after six treatments) and six weeks (or after 12 treatments) follow-up and intermittently in the maintenance period. Patients are discharged with a choice of home-based, gym-based or DBC-based stretching and pain management programs.



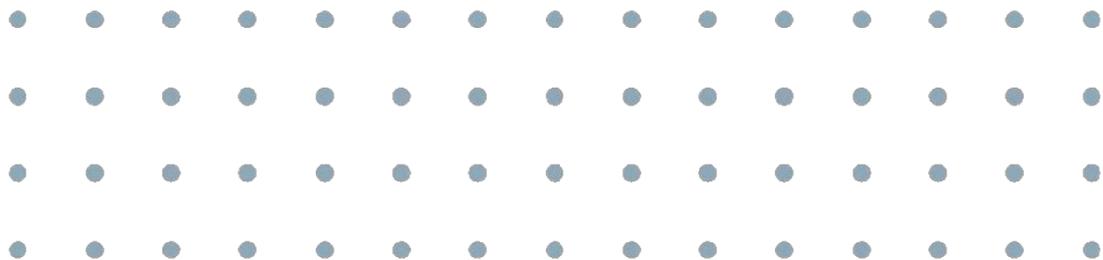
# PROGRAM DOCUMENTATION BASED CARE (DBC)

## Physical Therapy

The key difference between back-specific and non-specific exercises is that the loading and, subsequently, the effect can be targeted in an isolated and safe way to the lumbar spine. DBC-trained therapists guide the physical reconditioning programs. The treatment is primarily based on exercises in iso-inertial rehabilitation devices where correct loading and range limiters ensure exercises are performed in a painless and safe range of motion, targeting the lumbar spine paravertebral muscles.

Treatment includes controlled movements in lumbar and thoracic flexion, extension, rotation and lateral flexion. The treatment begins with low loads for the first weeks. The load is gradually increased until, at the end of the program, patients are instructed to continue an individualized secondary prevention program. This is carried out with or without guidance depending on the patient's needs.

The aim is to achieve segmental motion of the lumbar spine in a controlled manner.



# DBC Back & Neck Program: Management Algorithms

## Patients presenting with back pain:

Is the pain **1** acute **2** repeat acute **3** subacute or **4** chronic, or **5** does the patient request surgery?

### 1. IF ACUTE BACKACHE (0-6 weeks)

#### General warning signs:

- Sensory loss in the perineal area
- Night pain
- Local spinal column tenderness
- Abnormal pain patterns
- Other joints involved
- Intolerable pain
- Neurological symptoms

#### Decision

1. Surgery **or**
2. DBC **or**
3. Standard program

Assess for immediate risk of neurologic catastrophe (Assess general warning signs)

YES

NO

#### Imaging if pain > 4 weeks (Exclude)

- Malignancy
- Cauda equina
- Rheumatoid disease
- Nerve root compression: if neurological deficit or intractable pain

Refer to spin surgeon or relevant specialist.

#### Exercise therapy in management of acute lower back pain (LBP)

Many controlled randomised studies have been unable to find a favorable effect of exercise therapy on sickness absence or duration of the pain episode in acute (1st) LBP.

Instead, some analyses have indicated more and longer absences in the exercise therapy groups.

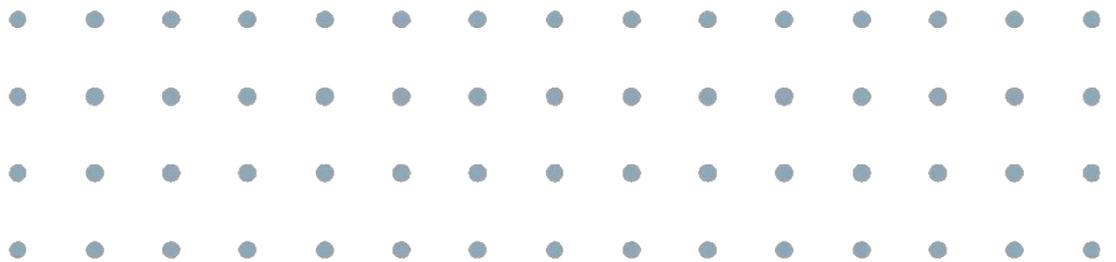
Therefore, these patients deserve other modalities of treatment than active exercises.

INITIATE MANAGEMENT

# PROGRAM DOCUMENTATION BASED CARE (DBC)

## Cognitive and Behavioral Support

The patient receives handouts that explain the back problem in layman's terms. Members of the rehab team also reinforce the benign nature and good prognosis of low-back pain. This, combined with objective measurements of the patient's progress, result in diminished fear of pain and increased self-efficacy beliefs. DBC provides treatment- and cost-effective solutions to patients, practitioners and funders' alike, improving quality of life and maintaining quality of care.



## INITIATE MANAGEMENT

### 1. Patient Education

Patient education should include:

- Expectations for rapid recovery
- The lack of need for special investigations unless red flags (warning signs) are present
- Safe and effective methods of symptom control
- Reasonable activity modifications
- Best means of limiting recurrent back problems If symptoms persist,

If symptoms persist, effectiveness and risks of diagnostic and treatment measures should be considered.

### 2. Symptom control

Medication NSAIDs/muscle relaxants/opioids are recommended. Physical treatment Manipulation can be helpful when used within the first month of symptoms. Lumbar corsets, shoe insoles or hot/cold packs may be used since they are not harmful. Not recommended: tens, traction, biofeedback. Injection therapy not recommended, including injections to trigger points, ligaments, facet joints, epidural space; or acupuncture.

### 3. Activity modification

Recommendations Temporarily limit activities known to increase mechanical stress on the spine.

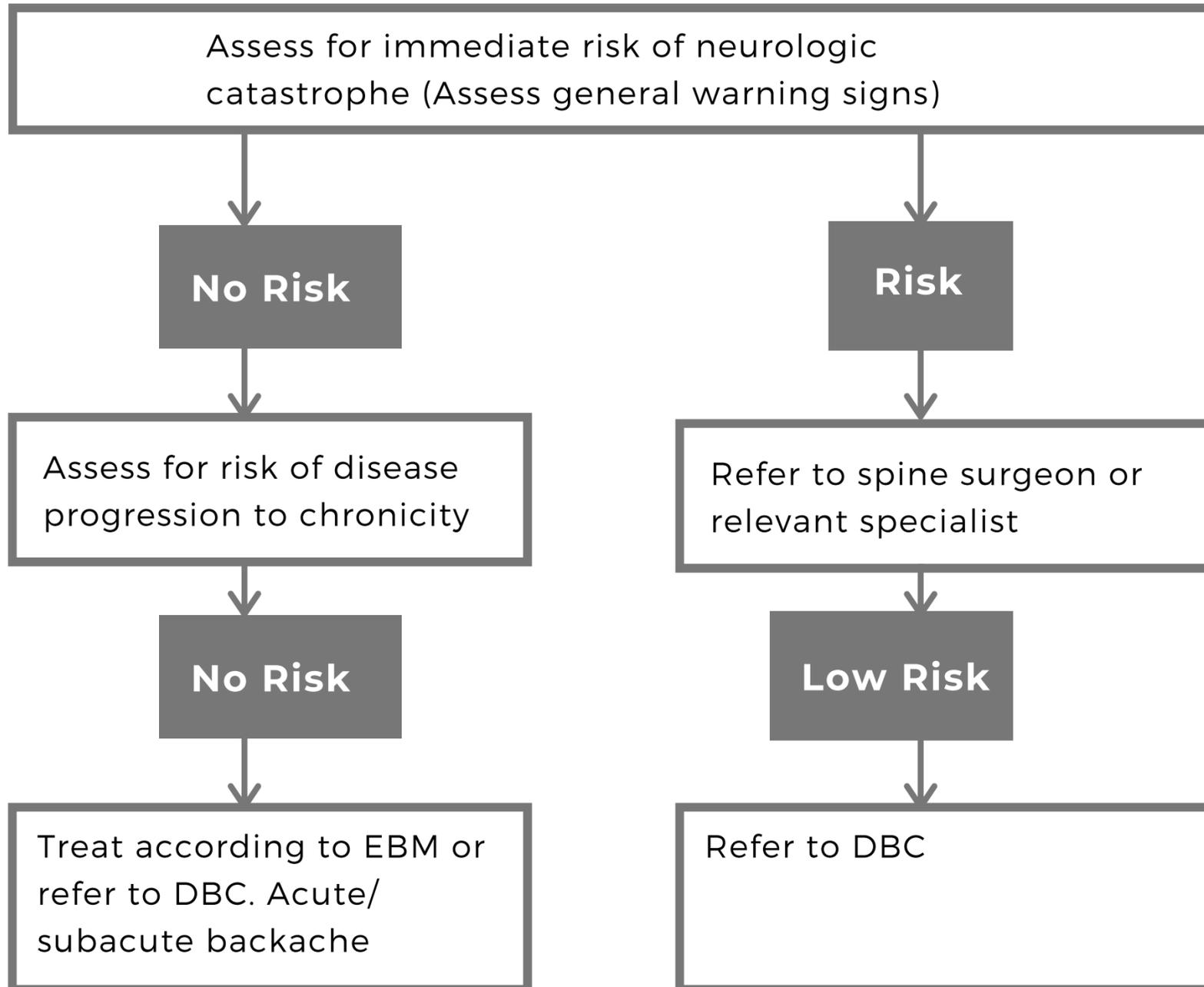
1. Bed rest (> 4 days) should be avoided; gradually return to normal activities. Most patients don't need bed rest at all.

2. Exercise Stress aerobic exercise can prevent debilitation due to inactivity; these exercises can be started within the first 2 weeks for most patients. Gradual trunk muscle exercises after the first

first 2 weeks are helpful for patients with acute low-back problems, especially if symptoms persist. Evidence does not support stretching of back muscles in the treatment of acute LBP.



## 2. IF REPEAT ACUTE BACKACHE



### Risks of disease progression to chronicity:

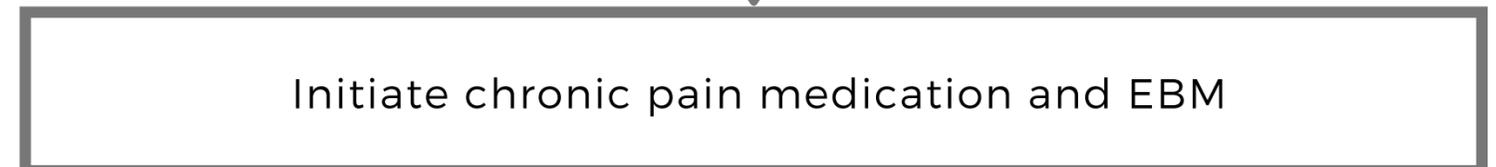
- Sensory loss in the perineal area
- Night pain
- Local spinal column tenderness
- Abnormal pain patterns
- Other joints involved
- Intolerable pain
- Neurological symptoms

### Subacute backache

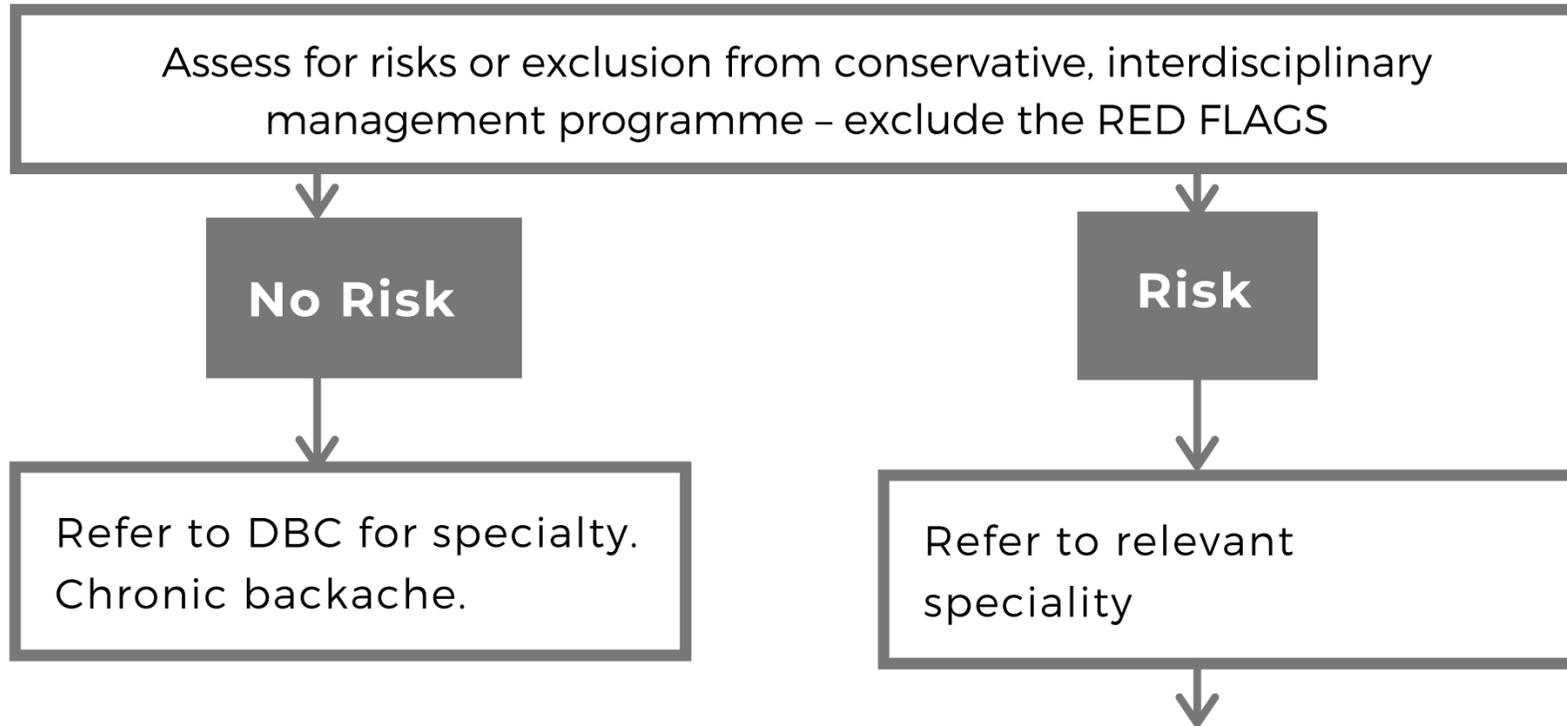
Is defined as having lasted

longer than 6 or 7 weeks, but shorter than 3 months. There is evidence in the medical literature that a progressive activity program with a behavioural therapy approach is superior to traditional LBP care (conservative physical therapy) with regard to mobility, strength, fitness and, perhaps most importantly, earlier return to work.

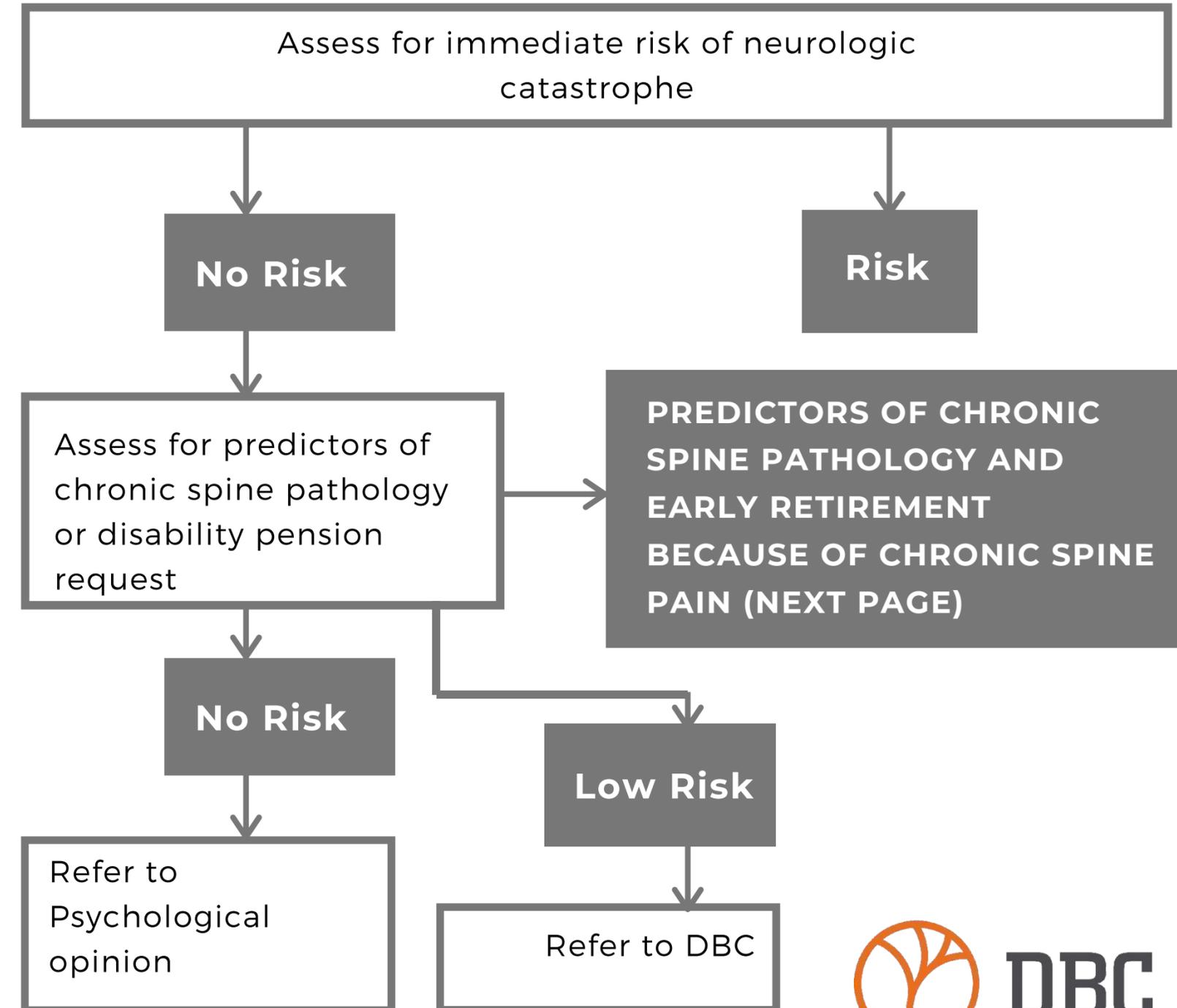
## 3. IF SUBACUTE BACKACHE (7-12 weeks) (Prolonged > 5 weeks Post-traumatic/Post-operative)



#### 4. IF CHRONIC BACKACHE (> 3 months)



#### 5. IF SURGERY REQUESTED BY PATIENT



#### Exercise therapy in management of acute lower back pain (LBP)

Current nerve root entrapment with intolerable pain or with progressive neuro-motor deficit.

- Cauda equina syndrome
- Spinal cord compression with neural claudication
- Spinal tumours
- Severe spine instability
- Severe osteoporosis with
- Recent fracture
- Severe cardiovascular disease
- Severe metabolic disease/diabetes mellitus
- Morbid obesity: BMI ≥ 40
- Recent (less than 4 weeks) major operation: abdominal surgery, joint replacement.

# PREDICTORS OF CHRONIC SPINE PATHOLOGY AND EARLY RETIREMENT BECAUSE OF CHRONIC SPINE PAIN

## Disease-related

- Previous pain
- High pain intensity
- High levels of physical impairment/ dysfunction
- Radiating pain

## Person-related

- Psychosocial setting
- Psychological distress
- Depression
- Job demands vs actual capabilities Job-related
- Self-perceived working ability
- Job satisfaction
- Claims and compensation

## Physical signs

- Paraspinal muscle atrophy
- Abnormal flexion-relaxation

- (EMG confirmed).
- Increased multifidus muscle fatiga-bility- (EMG confirmed)
- Multiple symptoms or dysfunctional areas
- Previous spinal surgery
- Previous whiplash or equivalent physical injury

## Disability/Sickness Absence

### Risks - check:

- Previous pain episodes
- Mood disturbances
- Psychosocial setting
- Economic status
- Job demands vs actual capabilities
- Delayed treatment

### Do:

- Fear avoidance
  - Behaviour
  - Questionnaire
- Rimon's brief depression scale
- Relocation locus of
  - Control questionnaire
- Work contents questionnaire
- Specific loading to spine questionnaire
- Self exper. strain at work

### questionnaire

### Risk factors - check:

- Perception of working ability
- Job-related factor/job satisfaction
- Delayed treatments
- Severity of disorders
- Claims for compensation

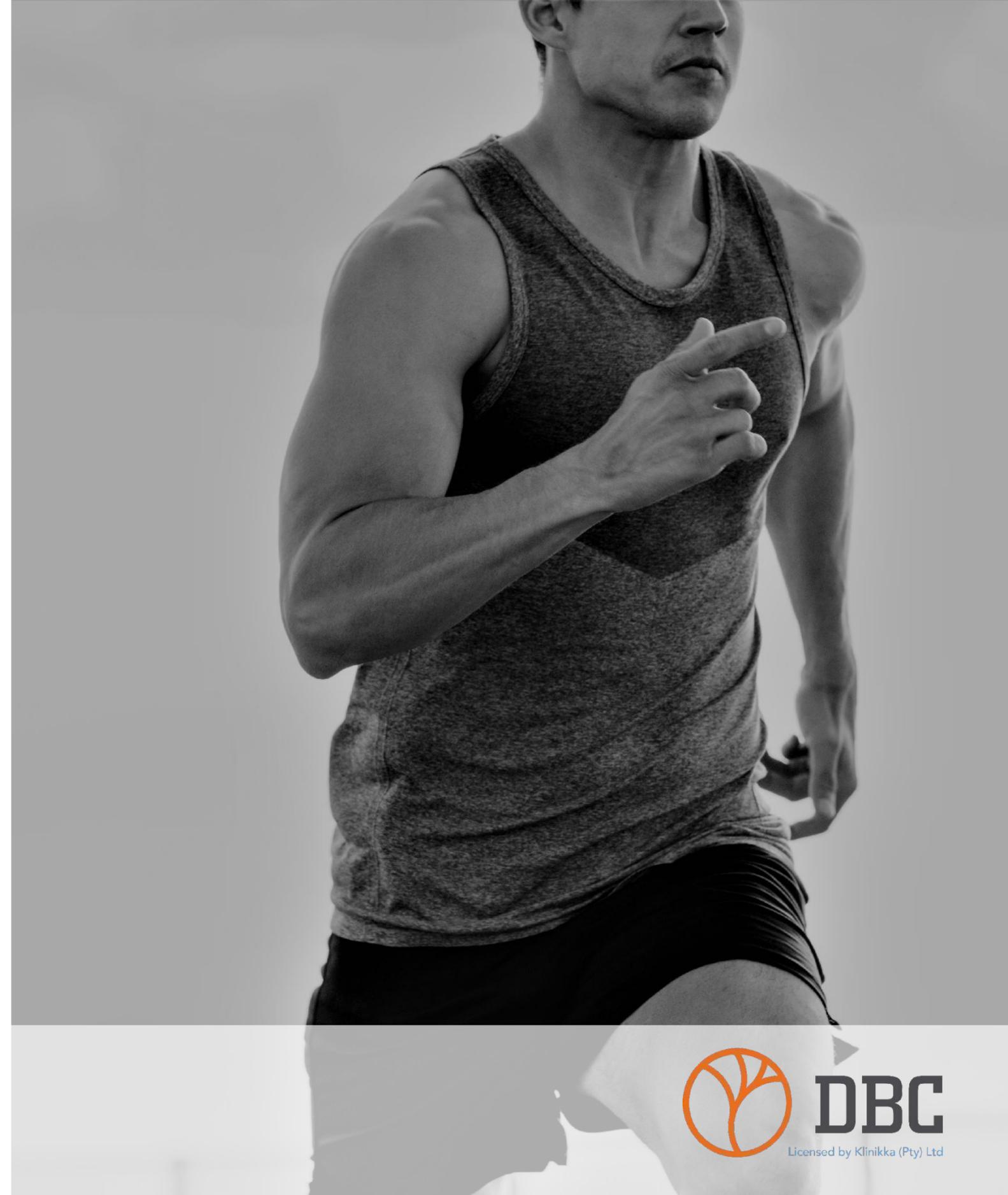
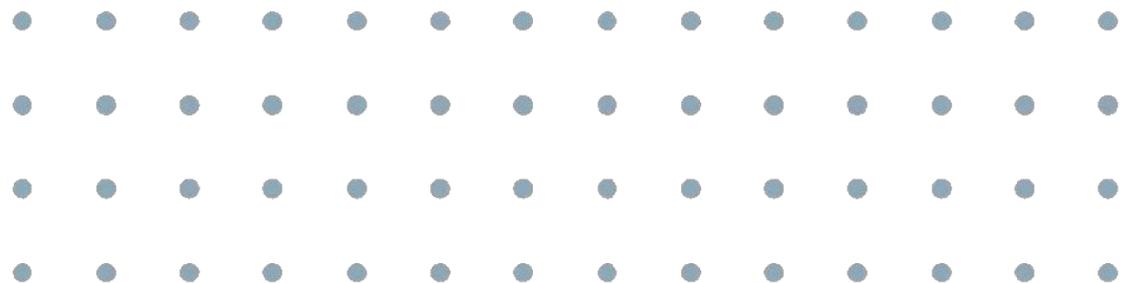
### Go:

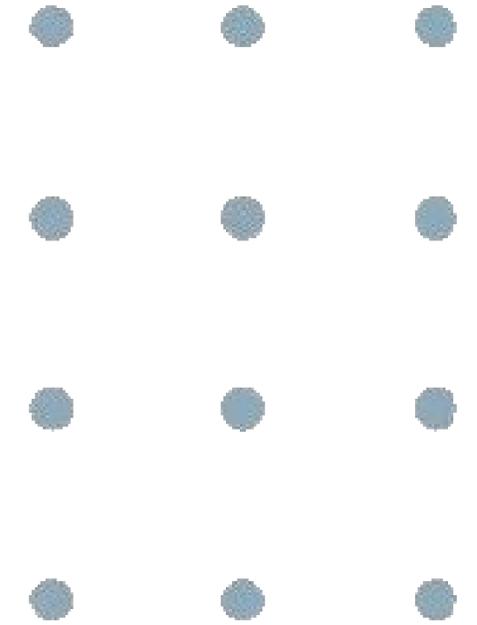
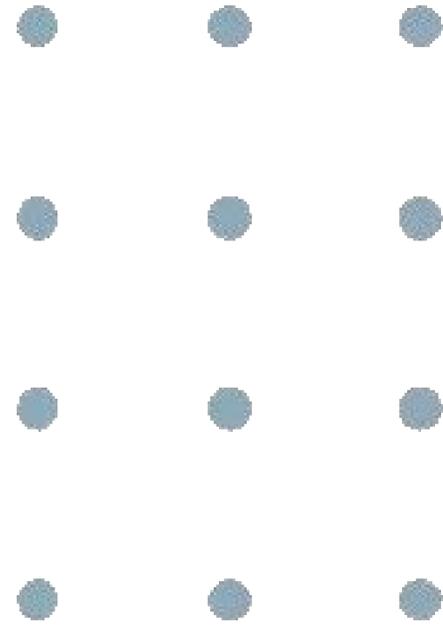
- Functional capacity evaluation - occupational therapist.



## LIFESTYLE-ASSOCIATED RISKS OF CHRONIC SPINE PATHOLOGY

- Sedentary work and social environment
- Psycho-emotional dysfunction (depression, anger, anxiety)
- Lack of exercise and muscle coordination, especially in ages 6-16
- Obesity
- Smoking
- High-risk sport activities
- Low social-economic standing
- Low education level
- Low employee status





Back and neck rehabilitation

## PROGRAM DOCUMENTATION BASED CARE (DBC)

NHRS provides a Documentation Based Care (DBC) back and neck Treatment programme to treat and manage back and neck conditions that involve prolonged and severe pain.

