A pulmonary rehabilitation program should be considered for any patient who has chronic lung disease and who is limited by dyspnoea. Pulmonary rehabilitation programs require a health professional who has the expertise to conduct an exercise program and who is trained in cardiopulmonary resuscitation. For the educational component of the program, a multidisciplinary team of health professionals may be involved.

Implementing the Program

**STEP 1 Patient assessment**

- Obtain medical history
- Assess smoking and nutritional status
- Perform spirometry or have access to spirometry results
- **Assess exercise capacity**
  - Does the program have access to a qualified Exercise Professional (ie, Accredited Exercise Physiologist or Physiotherapist) to test, prescribe and supervise exercise training?
  - **Six-Minute Walk Test**
    - Perform two baseline 6MWTs with at least 30 minutes rest between tests.
  - **Incremental Shuttle Walk Test**
    - Perform two baseline ISWTs with at least 30 minutes rest between tests.
- **Assess quality of life**
  - Chronic Respiratory Disease Questionnaire
  - St George’s Respiratory Questionnaire
  - COPD Assessment Tool (CAT)
- **Assess breathlessness**
  - Modified Medical Research Council Dyspnoea Scale
  - Modified Borg Dyspnoea Scale during exercise assessment
- **Assess patient’s goals**

A primary goal of pulmonary rehabilitation is to reduce the patient’s perception of shortness of breath.

Helping patients to identify their most salient ‘problems’ can help patients to establish achievable and motivating ‘goals’.

Patients should be evaluated for contraindications and precautions to exercise.

Supervisory staff should be aware of the criteria for termination of a test, and other important safety issues.
**STEP 2  Patient exercise training**

- **Design an exercise program**
  - Can a structured exercise program be developed based on the exercise testing results?
  - Lower limb endurance (walking, cycling)
  - The following can also be included in a comprehensive program:
    - Upper limb endurance (low weight, high repetition)
    - Lower limb strength (high weight, low repetition)
    - Upper limb strength (high weight, low repetition)
    - Flexibility, stretching, balance

- **Determine appropriate exercise**
  - Frequency
  - Intensity
  - Type
  - Time/duration

**STEP 3  Patient education**

- **Conduct educational sessions on**
  - The role and correct use of medications
  - Breathing techniques / managing breathlessness
  - Goal setting
  - Physical exercise
  - Nutrition / healthy eating
  - Information on diseases (e.g. what the lungs do)
  - Management of depression, anxiety and panic attacks
  - Coping with chronic lung disease and developing self-management plan

**STEP 4  Program evaluation**

- **Evaluate the effectiveness of the program on:**
  - Patient outcomes (exercise capacity, quality of life, breathlessness)
  - Patient feedback (using a patient satisfaction questionnaire)

- **Communicate with patient’s GP / physician**
  - Patient initial assessment
  - Patient final assessment

**STEP 5  Maintenance**

- **Continue to provide one supervised session a week for maintenance (if possible) or refer to community-based program or regular reassessment (every 6 months)**

- **Encourage patients to undertake a home exercise program**
  - Start home training during supervised training program
  - Encourage three home training sessions per week

Further information on setting up and implementing a pulmonary rehabilitation program is available at [www.pulmonaryrehab.com.au](http://www.pulmonaryrehab.com.au).

For further information on available pulmonary rehabilitation programs call Lung Foundation Australia at 1800 654 301.