

GET MOVING WITH HEART FAILURE
Heart Failure Awareness Week 2017 · February 12-18, 2017

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Guiding Your Patient's Exercise Routine Nurse Talking Tip Sheet

This Nurse Tip Sheet was developed by AAHFN as resource in facilitating patient education. It provides additional information so that the Nurse can supplement patient teaching with the corresponding Patient Tip Sheet. A list of resources is provided for additional information.

Background: Exercise routines in stable heart failure (HF) patients vary by the patient's age, exercise capacity, clinical characteristics (for example, <65 years or ≥65 years), activity habits (mainly sedentary or not), preferences, and goals; all of these factors are taken into consideration when guiding the patient's exercise routine.

Helping Your Patient "Get on the Move":

- Early mobilization after a HF hospitalization is recommended
- Exercise training is recommended for stable NYHA Class I-III HF patients
- Determine your patient's goals, preferred activities, abilities, and access to equipment and facilities
- Determine your patient's beliefs about HF and exercise; clarify any misconceptions
- Determine your patient's baseline activity level; how active the patient is now - how frequently does the patient do some form of exercise?
- A cardiopulmonary exercise test prior to initiating exercise is useful in developing an exercise program
 - If a cardiopulmonary exercise test result is available, the recommended training intensities are 40-50% to start, increasing to 70-80% of the maximal oxygen consumption (VO₂ max)
 - If a cardiopulmonary exercise test result is not available, data from the conventional stress test or a 6-minute walking test is helpful. Heart Rate (HR) or HR reserve (difference between maximal HR and resting HR) can be used to estimate the aerobic exercise training zone. The patient's perceived exertion should be monitored (maintain between Fairly light - Somewhat hard)

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Please refer to the Borg Perceived Exertion Scale on the AAHFN Website

([http://c.ymcdn.com/sites/aahfn.site-ym.com/resource/resmgr/docs/awareness/2017_HF_Week/6_Minute_Walk Test_Instructi.pdf](http://c.ymcdn.com/sites/aahfn.site-ym.com/resource/resmgr/docs/awareness/2017_HF_Week/6_Minute_Walk_Test_Instructi.pdf))

Points to Emphasize:

- Exercise, in general, can help to:
 - Make the heart and all muscle groups work more efficiently
 - Improve peripheral circulation, which can help to reduce cardiac workload
 - Reduce stress, improve sleep and quality of life, and maintain appropriate weight
 - Reduce mortality and morbidity rates
- Emphasize that even with HF your patient can exercise, but every person is different
- Emphasize that your patient should choose an enjoyable activity
- Instruct that warm-up activities allow for a gradual increase in HR and breathing and should be performed for at least 10-15 minutes prior to moderate-intensity exercise
- Cool down activities allow for a gradual decrease in HR and breathing and should be performed at the conclusion of exercise
- Advise your patient to cool down and allow his or her body to cool down gradually. Don't abruptly stop exercise or your patient may begin to feel light headed or dizzy

Types of Training/Assessment to Consider:

An individualized approach is recommended; may consult with an exercise professional if available

- Endurance/Aerobic Training
 - Includes walking, dancing, swimming, water aerobics, jogging, aerobic exercise classes, bicycle riding, raking, pushing a lawn mower, tennis and golf
 - Intensity Level
 - **Low-intensity** requires a low level of effort on a 0 to 10 scale where sitting is "0" and greatest effort possible is "10." Low-intensity may be rated as a 0 to 3 on this scale and produces no noticeable increases in breathing. Individuals are able to carry on a conversation.



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- **Moderate-intensity** may be rated as a 5 or 6 on this scale and produces noticeable increases in breathing and HR
- **Vigorous-intensity** may be rated as a 7 or 8 on this scale and produces large increases in breathing and HR
- Start at low intensity for 5–10 min 2 times/week. If well tolerated, increase the minutes/session and then the number of sessions per week
- Goal is 20–60 minutes, 3–5 days/week at moderate-to-high intensity. Not all patients will achieve the high-end of these goals.
- Strength Training
 - Includes exercise bands, weight machines, hand-held weights, calisthenic exercises, digging, lifting and carrying, carrying groceries, some yoga exercises, some Tai chi activities
 - One repetition maximum (1_RM) is the most weight the patient can lift once
 - Start at very low resistance (<30% 1-RM) until the patient is confident with movements. Then move to 12–25 repetitions at low intensity (30–40% 1-RM) and when confident move to 40–60% 1-RM intensity to increase muscle mass
 - Elastic bands can be used to exercise, but the intensity of use is difficult to quantify
 - Can be done standing or sitting
 - Endurance/Aerobic and Strength Training are recommended activities and are preferable to one or the other activity.
- Respiratory Muscle Strengthening
 - Adding respiratory muscle training to standard exercise training may improve exercise capacity
 - Respiratory muscle strength can be assessed by measuring the maximal inspiratory pressure (P_Imax) and the maximal expiratory pressure (P_Emax)
 - P_Imax reflects the strength of the diaphragm and inspiratory muscles
 - P_Emax reflects the strength of the abdominal muscles and expiratory muscles



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- Measurement of P_Imax and P_Emax can be made using devices that are widely available; some of which are hand-held and some which are connected to a computer
- If P_Imax is known, start at 30% of the P_Imax and adjust the intensity every 7–10 days up to a maximum of 60% over 20–30 min/day; 3–5 times/week for at least 8 weeks
- Stretching/Flexibility Training
 - Stretching of the key muscle or tendon groups; hold for 20-30 seconds, 2-3 days/week
- Balance Training
 - Helps to reduce the risk of falls
 - Includes slow backward walking, sideways walking, heel walking, toe walking, and standing from a sitting position

Monitoring:

- HR should be maintained < 110-130 bpm during moderate exercise. Recognize that HR may not be the only measure of exertion especially if the patient is on HR-reducing medications (such as beta-blocker, calcium blocker)
- Perceived exertion: Teach your patient how to use the Borg scale
- Emphasize to your patient the need to pay attention to his or her body and stop exercising if any of the following occurs:
 - Pressure across the chest, neck, jaw or arms
 - Lightheadedness or dizziness
 - Shortness of breath above baseline
 - Overly fatigued above baseline

If your patient experiences any chest pain/discomfort or shortness of breath above baseline, be sure he or she knows to stop the activity or exercise and seek immediate care. After the acute episode, make sure your patient contacts his or her health care team to discuss the appropriate next steps.

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For Future Reference

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