



# CARDIAC ATHLETIC SOCIETY EDMONTON

## Heart Murmurs

September 2017

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Heart Murmurs is the newsletter of CASE published in February, March, April, May, September, October, November and December each year. Suggested articles can be submitted to Barry Clark at <a href="mailto:kbclark1@telus.net">kbclark1@telus.net</a> Back issues of the newsletter are posted on the CASE website at: <a href="http://www.edmontoncase.ca">http://www.edmontoncase.ca</a>		

### ***PARTICIPATING IN EXERCISE PROGRAMS...***

Now that summer is just about over (sigh) it is time to think about how we will be working to maintain our fitness in the coming months. This article looks at some of the ways we can determine how hard we are working and offers some general measures to consider when working out. Beware of pushing yourself too hard, too often. If you are short of breath, are in pain or can't work out for as long as you'd planned, your exercise intensity is higher than your fitness level allows. Back off a bit and build up your intensity and endurance more gradually.

One way to gauge your exercise intensity is to see how hard your heart is beating during physical activity. To use this method, you first figure out your maximum heart rate which approximates the upper limit of what your cardiovascular system can handle during physical activity.

The basic way to calculate your maximum heart rate is to subtract your age from 220. For example, if you're 65 years old, subtract 65 from 220 to get a maximum heart rate of 155. This is the maximum number of times your heart should beat per minute during exercise. Once you know your maximum heart rate, you can calculate your desired target heart rate zone — the level at which your heart is being exercised and conditioned but not overworked.

For moderate exercise intensity, the American Heart Association targets rates of 50 to about 70 percent of your maximum heart rate (e.g. For a 65-year-old this would be 78 to 108). For vigorous exercise intensity, they target 70 to about 85 percent of your maximum heart rate (e.g. For a 65-year-old this would be 108 to 124).

The Mayo Clinic Program recommends a target heart rate of 65 percent to 75 percent of your maximum heart rate for moderate-intensity exercise (e.g. For a 65-year-old this would be 100 to 116).

If you're not fit or you're just beginning an exercise program, aim for the lower end of your target zone. Then, gradually build up the intensity. If you're healthy and want a vigorous intensity, you might opt for the higher end of the zone. So how do you know if you're in your target heart rate zone? Use these steps to check your heart rate during exercise.

Stop momentarily and take your pulse for 15 seconds. To check your pulse over your carotid artery, place your index and third fingers on your neck to the side of your windpipe. To check your pulse at your wrist, place two fingers between the bone and the tendon over your radial artery which is located on the thumb side of your wrist. Multiply this pulse by 4 to calculate your beats per minute.

It's important to note that maximum heart rate is just a guide. You may have a higher or lower maximum heart rate, sometimes by as much as 15 to 20 beats per minute. If you want a more definitive range, consider discussing your target heart rate zone with your cardiologist. Note that several types of medications, including some to lower blood pressure, can lower your maximum heart rate and, therefore, lower your target heart rate zone. Ask your doctor if you need to use a lower target heart rate zone because of any medications you take or medical conditions you have.

Interestingly, research shows that interval training, which includes short bouts (around 15 to 60 seconds) of higher intensity (maximal effort) exercise alternated with longer, less strenuous exercise throughout your workout, is well-tolerated. It's even safe for those with certain cardiac conditions. This type of training is also very effective at increasing your cardiovascular fitness and promoting weight loss.

Source: adapted from <http://www.mayoclinic.org/healthy-lifestyle/fitness/in-depth/exercise-intensity/art-20046887?pg=2>

## ***KEEP ON TRACKING!***

Cardio exercise is essential for all-around health, but many older people have trouble hitting the recommended 150 minutes of moderate-intensity exercise per week. Also, some people may have limitations that prevent them from doing traditional cardio workouts like walking, running, or swimming. However, there may be another option: using the standard gym treadmill.

The machines can target the key muscle groups that older adults need to strengthen to improve balance and endurance, such as quadriceps, calves, glutes, and hamstrings. They also can be helpful for people recovering from an injury or surgery, since you can control the speed and intensity, and they are equipped with handrails for added support when needed. Treadmills offer a safe environment, too, free from unpredictable footing and adverse weather conditions and they can be programmed for individualized workouts.

Most treadmills monitor the workout intensity with hand sensors that measure your heart rate, but that's not the most useful approach. A better way to gauge your effort is to use what's called the rate of perceived exertion, which involves ranking your sense of how hard you're working on a 1-to-10 scale, with 1 being low and 10 being high. For instance, a rate of 5 to 7 is consistent with a moderate-intensity level where you work hard, but can maintain a conversation and do not overexert yourself. The table describes measures for the individual to determine how hard they should be working.

<b>Rate of perceived exertion</b>		
<b>Zone</b>	<b>% of Max Heart Rate</b>	<b>Perceived Exertion Rate</b>
1	50–65	5–6 (easy/comfortable)
2	65–75	6–7 (challenging but comfortable)
3	75–85	7–8 (challenging and uncomfortable)
4	85–95	8–10 (breathless; not maximum, but winded)

How you use a treadmill should be determined by what you are trying to achieve with your fitness program. Here are three treadmill routines you can add to your exercise program that address different needs: speed, endurance, and muscle building. Whichever routine you choose, do it for 10 minutes at first, and then gradually build up to 20 to 30 minutes as you progress.

Take the time for a five- to 10-minute warm-up, in which you walk at a slow pace, and do the same at the end to cool down. This helps reduce your risk of injury and improves post-workout recovery. You also may need to begin with a lower level of intensity at first (around 4 or 5 on the exertion scale) and gradually increase it over time.

***Routine 1: Incline (endurance and muscle building)***. An incline setting generates more muscle activity than walking on a flat surface since you work against gravity. A small 2014 study in the journal *Gait & Posture* found that incline treadmill walking could benefit people with knee osteoarthritis and knee replacements.

Begin the workout walking at a zero-grade incline at an exertion of 3 or 4 for up to two minutes, then increase to level 1 incline for another minute or two. Repeat the routine until you reach an incline level where you work at level 5 to 7 exertion and try to maintain it for a minute or longer. Then reverse the routine until you reach the zero-grade incline again. It is fine to stay at an incline longer, or to exercise at a lower exertion rate, until you are more comfortable.

***Routine 2: High-intensity interval training (HIIT) for speed, endurance, and muscle building.*** HIIT involves alternating between set periods of high-intensity work and rest. The high intensity is at an exertion rate of around 5 to 7, while you rest at a rate of 2 or 3. HIIT is based on your individual exertion, so adjust the treadmill to match this desired effort.

The point with HIIT is to mix up the intensity to make yourself work harder for shorter periods. It can be fun and breaks up the monotony of exercise. HIIT is also ideal for people who have trouble finding time to exercise

Begin the workout with a moderately high intensity-to-rest ratio of 1:3, in which you exercise for one minute and rest for three minutes. As you improve, you can vary the ratio to 1:2 or 1:1 or even work for longer high-intensity periods with shorter rest breaks.

***Routine 3: Speed variations (speed and endurance).*** One advantage to treadmills is that you can control speed. Many treadmills have several types of pre-programmed workouts that vary the speed and even incline, often with labels, such as "fat burning," "tempo," or "hill climbing." These can help increase your cardiovascular health by varying the effort and can be another way to add variety.

This routine lets you play with the options offered on your treadmill. Choose one of the pre-programmed workouts and adjust the speed and resistance as needed to ensure you stay within an exertion range of 5 to 7.

***Remember:***

- Consult with your doctor before beginning any fitness program.
- Since treadmill technology can vary depending on the brand, consult with a professional trainer to review all the machine's functions and safety features.
- Begin and end each workout with a five- to 10-minute warm-up and cool-down.
- Try to stay within a range of 5 to 7 on a 10-point scale of perceived exertion.
- Mix it up — variety in effort and routines can make workouts fun.

Source: Adapted from [Harvard Men's Health Watch](http://www.health.harvard.edu/staying-healthy/get-smart-about-treadmills?utm_source=delivra&utm_medium=email&utm_campaign=WR20170526-Exercise&utm_id=510327&dlv-ga-memberid=11072240&mid=11072240&ml=510327) Published: May, 2017  
[http://www.health.harvard.edu/staying-healthy/get-smart-about-treadmills?utm\\_source=delivra&utm\\_medium=email&utm\\_campaign=WR20170526-Exercise&utm\\_id=510327&dlv-ga-memberid=11072240&mid=11072240&ml=510327](http://www.health.harvard.edu/staying-healthy/get-smart-about-treadmills?utm_source=delivra&utm_medium=email&utm_campaign=WR20170526-Exercise&utm_id=510327&dlv-ga-memberid=11072240&mid=11072240&ml=510327)

# CASE Events Calendar - September 2017

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2
3	4 Labour Day	5 <b>Exercise Program</b> Volleyball 3:45 Aerobic/Stretch 4:45	6 <b>Golf</b> Weather Permitting Twin Willows Golf Club Noon Tee-Off	7 <b>Exercise Program</b> Volleyball 3:45 Aerobic/Stretch 4:45	8	9
10	11 CASE Education	12 <b>Exercise Program</b> Volleyball 3:45 Aerobic/Stretch 4:45	13 <b>Golf</b> Weather Permitting Twin Willows Golf Club Noon Tee-Off	14 <b>Exercise Program</b> Volleyball 3:45 Aerobic/Stretch 4:45	15	16
17	18	19 <b>Exercise Program</b> Volleyball 3:45 Aerobic/Stretch 4:45	20 <b>Golf</b> Weather Permitting Twin Willows Golf Club Noon Tee-Off	21 <b>Exercise Program</b> Volleyball 3:45 Aerobic/Stretch 4:45	22	23
24	25 <b>Board Meeting</b> <b>Bonnie Doon</b> <b>9 a.m.</b>	26 <b>Exercise Program</b> Volleyball 3:45 Aerobic/Stretch 4:45	27 <b>Social Breakfast</b> <b>SEESA 9am</b>  <b>Golf, Twin Willows</b> Noon Tee-Off	28 <b>Exercise Program</b> Volleyball 3:45 Aerobic/Stretch 4:45	29	30

