



Cardio Training Template

Interval Training, Zone 2 Training & The 4X4 Approach

Family Fitness Association

NOTE: DO NOT ATTEMPT ANY CARDIO-VASCULAR WORKOUT UNLESS CLEARED BY YOUR PHYSICIAN TO DO SO. STOP IMMEDIATELY IF YOU FEEL FAINT, DIZZY OR LIGHTEADED.

NEVER START THIS TYPE OF ROUTINE WITHOUT A PROPER WARMUP. INJURING YOUR CALF OR HAMSTRING WILL BRING PROGRESS TO AN INSTANT HALT!

Interval Training

Evolutionarily, we were meant to run for short distances and sit down; maybe you ran away and didn't become dinner and sat down. Maybe you had to run and run and try to capture dinner so the family could eat and then sit down.

Short bursts of intermittent activity followed by periods of rest are the preferred manner to train the cardiovascular system, particularly for fat burning.

These days we call that interval training.

We want to have a brief period of exercise followed by a period of backing off or complete rest. Studies have shown that this produces more significant drops in body fat as well.

Here is an excellent routine that will show rapid results. It is quite simple and quite effective. It can also be done anywhere.

Examples are given below.

Here is an overview of how this is executed. **This is an example and NOT for someone trying this for the first time.**

Step I. After a brief warm-up, get in a comfortable walking speed for about 60 seconds. While some folks walk faster than others, a tolerable might be somewhere around 3 miles per hour.

Step II. At the end of 60 seconds begin a 60-second jog. This may be anywhere from 4 to 4.6 miles per hour.

Step III. After 60 seconds, move the speed up as fast as you can tolerate for one minute. For some people, this speed will be no more than 5- 5.5 miles per hour. For others, top speed is going to be closer to 8 or 9 miles per hour. If you are a highly accomplished runner, you may go even faster.

The idea is that at the end of 60 seconds, you must be NEED to stop. You should not be able to continue at that pace for another 30 seconds. If you could continue past 60 seconds, you were going too slow!

Repeat this three-minute cycle, walking, jogging, and hard running anywhere from 8 to 12 times. When you first try this routine, you may only be able to complete this circuit for three or four cycles.

That's fine.

Listen to your body and only do what you can tolerate.

Eventually, you want to work up to maybe doing it ten times to twelve times. Hence, the entire workout should last no more than 30 to 36 minutes.

Recommended Cardio Training Patterns

NOTE I:

- Again, do not undertake ANY cardio-vascular training program without first consulting a physician and getting approval to do so.
- Immediately cease exercise if you feel faint or dizzy.
- Always be aware of outdoor temperature and avoid working out in excessive heat.
- Beginners should ALWAYS work out with a partner.
- Stay well hydrated at all times.

****NOTE II**:**

While these routines talk about walking on a track, street, or treadmill, this is HIGHLY effective when done on a bike stationary bike at the gym. In fact, I get some of my best workouts on the stationary bike.

This removes the impact and pounding on the knees and hips AND reduces the risk of injury significantly!

Level I

Option 1 – For individuals just starting and able to walk outdoors

Street Version – walking only

- 1) Warm up for approximately 5 minutes of 'regular walking pace', which should be in the area of 2.8mph to 3.2mph or approx. 120 strides per minute.

2) Select a target landmark in the distance which will take a minimum of 30 seconds to reach.

3) Increase walking speed to a more rapid, but safe pace. The exact speed will be highly individual but may be anywhere from 4 to 5.5mph or even 6mph.

This equates to anywhere from 150-190 strides per minute.

NOTE: You should be able to maintain a conversation during this rapid walking phase. This time will slowly move up to 60 seconds to reach. It will take only a brief period to develop the ability to determine how far away a landmark is and how long it will take to get there.

4) Once you reach the landmark, decrease the walking speed back down to the original 2.8 to 3.2mph.

5) Repeat 4-6 times initially with a long-range goal of 30 to 45 minutes

Option 2 - Walking outdoors on a track:

1) Warm up for approximately 5 minutes of 'regular walking pace', roughly 1 lap.

2) Select a starting point, perhaps using an existing track's painted finish line.

3) Increase walking speed to a more rapid, but safe pace. The exact speed will be highly individual but may be anywhere from 4 to 5.5mph or even 6mph. This equates to anywhere from 150-190 strides per minute.

4) Maintain a fast pace for $\frac{1}{2}$ of a lap or 200 meters.

5) Once you have completed the 200 meters, reduce to the original walking speed for another 200 meters (equal to half a lap).

6) Repeat 4-6 times initially, gradually working up to 30-45 minutes. The first workout may last 1 mile.

NOTE: If you cannot complete the mile, cut all the above distances in half until you can work up to that level.

Option 3 – Walking on a treadmill

Most treadmills and other cardio machines have an Interval setting built in. Many allow individuals to select a slower and faster speed to alternate between.

Use the recommended speeds above as part of this option.

It is also recommended individuals use a treadmill before going outside to walk to safely learn and determine personal limits. Experience on a treadmill will allow for a learning period to determine what faster speeds feel like and comfortable at specific target tempos for each of these workouts.

Level II

Option 1 – Moderate: For individuals with the ability to run without pain:

- 1) Walk 1 minute: Speed: 2.8-3.0 miles per hour / 120 strides per minute
(20-minute mile)
- 2) Jog 1 minute: Speed: Approx. 4.3-4.6 miles per hour / 150 strides per minute
(14-minute mile)
- 3) Run 45 seconds to 1 minute (target over 6-6.5 mph or greater / 190-200 strides per minute
(10-minute mile) Depending upon ability this running speed may be as high as 10 mph.
- 4) Repeat this 3-minute pattern 8-10 times.

NOTE: Less experienced runners: You may need to start with only 4-6 cycles and work up from there. The goal is to get this pattern to last over 30 minutes.

Option 2: Using an outdoor 400-meter track

- 1) Walk 100 meters at a regular pace as above
- 2) Run/jog 200 meters at a moderate pace
- 3) Repeat 4-6 times at first and then move up to 30 to 45 minutes

Option 3:

A similar pattern to the above, but change speeds to match songs on a preferred playlist. Some people find this more motivating due to personal music selection.

These interval periods will be much longer due to the average song length, so only follow this recommendation if you have prior, recent running experience.

Option 4:

If your knees are bothering you, use an Arc Training or Bicycle and follow the same 3-minute pattern.

Level III: More advanced

Option 1:

Two-minute pattern:

- 1) Jog for 1 minute at 4.3-4.6 mph. This equates to 150-160 strides per minute or a 13-14 minute mile.
- 2) Run for 30-45 seconds as quickly as you can handle. It is not necessary to track the speed or stride frequency, only that the effort (intensity) is as high as safely tolerable. More advanced runners may move this 'Run' time to as high as 1 minute.

This pattern is more challenging. Try to count the cycles completed and add 1-2 cycles per week.

All of these patterns should be easily adapted to other types of cardio equipment available to allow for sore joints or simple variety.

Option 2:

- 1) Walk 100 meters at a regular pace as above
- 2) Jog 200 meters at a moderate pace
- 3) Run/Sprint 200-300 meters
- 4) Repeat 4-6 times at first and then move up to 30 to 45 minutes

Zone 2 Training

While I'm a huge fan of interval training, a blend of Interval training and Zone 2 training has been shown to have a positive impact on cardiovascular conditioning and weight loss.

Zone 2 is described as the speed at which you can run, bike, or row at a sustained speed for an extended period.

Say roughly, 40-60 minutes.

How fast is the right speed?

- 1) You should be able to maintain a conversation...if you have to.
- 2) Your heart rate should be rough 60% of your maximum heart rate

RPE SCALE	RATE OF PERCEIVED EXERTION
10 /	MAX EFFORT ACTIVITY Feels almost impossible to keep going. Completely out of breath, unable to talk. Cannot maintain for more than a very short time
9 /	VERY HARD ACTIVITY Very difficult to maintain exercise intensity. Can barely breathe and speak only a few words
7-8 /	VIGOROUS ACTIVITY Borderline uncomfortable. Short of breath, can speak a sentence
4-6 /	MODERATE ACTIVITY Breathing heavily, can hold a short conversation. Still somewhat comfortable, but becoming noticeably more challenging
2-3 /	LIGHT ACTIVITY Feels like you can maintain for hours. Easy to breathe and carry a conversation
1 /	VERY LIGHT ACTIVITY Hardly any exertion, but more than sleeping, watching TV, etc

Using this scale, you should target the 4-6 green band.

You may not start anywhere near 40 minutes, but I recommend adding a minute or two each week or session you do Zone 2 work.

The 4X4 PROGRAM

The following routine was created by Doctor and longevity guru Peter Attia. I have used it myself and with multiple clients with great success!

I like to do this on a stationary bike

It's very simple but challenging

Phase 1

4 minutes is a low-intensity pace.

Try level 10 (out of 20-25)

Keep it at 60 rpms

Phase 2

4 minutes is a higher-intensity pace

Try level 16 (out of 20-25)

Keep it at 74-76 rpms.

Repeat this 8-minute cycle 4 times for a total of 32 minutes.

With time, try to increase the intensity of the higher-level phase. Keep phase 1 in recovery mode.