

Sat Oct 13, 2018 **50 miles**

I ran and walked the hilly Canandaigua 50 mile. It was rather cool in the mid 40's, rainy and windy. Lots of time the wind was in our faces. I had about 2700 calories in my breakfast cereal, banana, energy bar, Gatorade and defizzed coke. I wanted to run under 10 hours which is 12:00/mile. At 25 miles my average pace was 11:40/mile. I realized I could not hold that pace so I started walking a lot more and enjoying the run a lot more too. My final time was 10:52:39. The race director, Gil Robs and his crew were very friendly and the run was well organized with course marshals at major intersections and clear course markings everywhere else. There were lots of people at the 12 aid stations helping the runners and cheering us on. It was a great run on my 76th birthday.

Sun Oct 14, 2018 **no running**

Mon Oct 15, 2018 **no running**

Tues Oct 16, 2018 **no running**

I pushed a lawnmower for an hour.

Wed Oct 17, 2018 **2 miles**

I ran 2 miles on a treadmill.

Splits: 10:00, 8:14

Thurs Oct 18, 2018 **3 miles**

I ran 3 miles at various paces between 10:00/mile and 12:00/mile.

Fri Oct 19, 2018 **no running**

55 miles in the last week

Sat Oct 20, 2018 **31.5 miles**

I ran in the Erie Personal Endurance Classic. Runners are timed while running as many 1.05 mile loops as they want. I ran 30 loops for a total of 31.5 miles. My time and overall mile pace were 6:05:08 and 11:35/mile. I passed the 50K point in about 5:59 and reached my goal of running 50K in under 6 hour. I ate and drank plenty of calories. I drank about 90 ounces of Gatorade and defizzed Coke which is almost 3 ounces per mile. This may not have been quite enough even though the day was cool. The race director Jim Lang was very friendly and helpful. Mike Viera helped me keep track of the number of loops I had completed while I was running. Thank you Mike.

Sun Oct 21, 2018 **no running**

Mon Oct 22, 2018 **4 miles**

I ran 1.75 miles downhill averaging 11:44/mile and then rested a half hour. I ran 1.25 miles **slightly** uphill averaging 10:43/mile. It was easier going uphill than down because my quads are tired from Saturday's run. I rested 3 minutes. I walked 1 mile up a steep hill in 17:15.

Tues Oct 23, 2018 **2 miles**

I ran 2 miles on a hilly course. Splits 10:33, 10:38

Wed Oct 24, 2018 **2miles**

I ran 2 miles at various paces on roads and trails.

Thurs Oct 25, 2018 **no running**

Fri Oct 26, 2018 **3 miles**

Warmup: I ran ½ mile at a good pace down to the Wise Center and rested a few minutes.

Run: I ran 2 miles in 19:28 on a treadmill. Splits: 10:30, 8:58

I ran faster as I went, starting at about 11:00/mile and ending at 8:00/mile.

Warmdown: I rested a few minutes and jogged ½ mile home

42.5 miles in the last week

Sat Oct 27, 2018 **3 miles**

I ran in the Wise Center.

Warmup: ½ mile on the indoor track in 4:37 and rest about 5 minutes

Run: I ran 2 miles on a treadmill in 18:37. Splits: 10:00, 8:37

I ran faster as I went, starting at about 10:30/mile and ending at 7:41/mile.

Warmdown: I rested about 5 minutes and ran ½ mile on the indoor track in 4:56.

Sun Oct 28, 2018 **no running**

I preped for a colonoscopy.

Mon Oct 29, 2018 **no running**

I had a colonoscopy.

Tues Oct 30, 2018 **3 miles**

I ran on a treadmill in the Wise Center.

Warmup: ½ mile in 4:54 and rest a few minutes

Run: I ran 2 miles in 17:15. Splits: 8:55, 8:20

I ran faster as I went, starting at about 10:10/mile and ending at 7:41/mile.

Warmdown: ½ mile in 5:30

Wed Oct 31, 2018 **4.2 miles**

Warmup: 1 mile in 9:45

Run: Tim Dunn and I ran 4 x 1.5 cemetery loops in a very light rain. Each run was 765 meters. Between each interval we jogged about 250 meters in 3 minutes. We got faster with each of the runs. Tim ran 30-35 seconds faster than me on each of the runs. He started after I did and we finished together. It was great!

My times: 3:50, 3:46, 3:42, 3:37

My average pace for the last interval was 7:36/mile.

Warmdown: 0.8 mile jog

Thur Nov 1, 2018 **3 miles**

I ran on a treadmill in the Wise Center.

Warmup: ½ mile in 5:00 and rest 4 minutes

Run: I ran 2 miles in 17:04. Splits: 8:55, (4:12+3:57) = 8:09

I ran faster as I went, starting at about 10:00/mile and ending at 7:41/mile.

Warmdown: ½ mile in 5:25

Fri Nov 2, 2018 **3.5 miles**

Warmup: ½ mile to the Wise Center and a few minute rest

Run: I ran 2 miles in 19:00 on a treadmill.

Warmdown: ½ mile in about 5:30 and ½ mile walk on the indoor track in about 7:50

16.7 miles in the last week

Sat Nov 3, 2018 **3.75 miles**

Warmup: ½ mile run to the Wise Center and a few minute rest

Run: I ran and walked 3 miles on the indoor track and averaged 10:35/mile.

I walked 125 yards at the beginning of each half mile. My walking pace was about 16:00/mile and my running pace about 9:45/mile. **Warmdown:** 1/4 mile walk in about 4:00

Sun Nov 4, 2018 **3.5 miles**

Warmup: ½ mile run to the Wise Center and a few minute rest

Run: 1 mile on a treadmill at various pace, time: 8:40 and a few minute rest

3 x 0.2 miles at 7:14/mile pace with a 0.3 mile jog before each run. The jogs were at about 11:00/mile. **Warmdown:** 0.5 mile jog

Mon Nov 5, 2018 **4.75 miles**

Warmup: ¾ mile jogging

Run and walk: 3 miles on the indoor track averaging 11:30/mile

I ran 3/8 mile, walked 1/8 mile and repeated until I reached 3 miles. My running pace was about 10:00/mile and my walking pace was about 16:00/mile.

Warmdown: I rested a few minutes and walked a mile in 16:10.

Tues Nov 6, 2018 **4 miles**

Warmup: ½ mile run to the Wise Center and rest a few minutes

Run: 2 miles on a treadmill Splits: 9:29, 9:00 and rest a few minutes

4 x 0.15 miles at 7:14/mile pace with a 0.1 mile jog before each run. The 0.15 mile runs each took 65 seconds. The jogs before each 0.15 mile run took about 70 seconds.

Warmdown: 0.5 mile jog

Wed Nov 7, 2018 **2 miles**

I road a stationary recumbent bike on level 12. My final pulse was 114.

Calories: 200, Distance: 5.2 miles, Time: about 19:00

I am taking this to be equivalent to 2 miles of running.

Thur Nov 8, 2018 **4 miles**

I ran with 5 other runners on the Geendale Cemetery 510 m loop.

Warmup: 1 mile

Run: 6 x 1 loop with a 250 m jog between each of the runs. The jogs took about 4:00.

Times: 2:35, 2:29, 2:30, 2:19, 2:39, 2:24

The average pace for the fastest run is 7:19/mile.

Fri Nov 9, 2018 **3.5 miles**

1 mile on the Wise Center indoor track in 8:53 running faster as I went. Last ¼ mile at 7:50/mile pace. Then I rested a few minutes. I road a stationary recumbent bike on level 12.

Final pulse: 130, Ave Speed: 16.9 mi/hr, Calories: 200, Distance: 5.3 miles, Time: 18:50

I am taking this as equivalent to 2 miles of running. I rested and then walked ½ mile in 16:20

25.5 miles in the last week

Sat Nov 10, 2018 **4.25 miles**

Warmup: 1.5 miles on a Wise Center treadmill. I ran faster as I went.

Time: 13:27, Splits 9:29, 3:58 (for the last ½ mile). Then I rested 4 minutes.

Run: 5 x 0.16 miles at 7:09/mile pace with a 0.09 mile jog before each run. The 0.16 mile runs each took 68.6 seconds. The jogs before each 0.16 mile run took about 85 seconds.

Warmdown: I rested about 4 minutes, ran a mile in about 9:30 and jogged ½ mile home.

Compare this workout to the ones on Sun Nov 4, 2018 and Tues Nov 6, 2018. I felt better running faster today than previously. I plan to continue running these intervals faster and longer, and increasingly more of them.

Sun Nov 11, 2018 **no running**

Mon Nov 12, 2018 **4 miles**

Warmup: ½ mile to the Wise Center and rest a few minutes.

1.5 miles on a treadmill starting at about 10:00/mile, ending at 7:41/mile averaging 8:52/mile

Run: 5 x 0.18 miles at 7:09/mile pace with a 0.12 mile jog before each run. The 0.18 mile runs each took 77.1 seconds. The jogs before each 0.18 mile run took about 88 seconds.

Warmdown: ½ mile in 4:58

Tues Nov 13, 2018 **2 miles**

I ran and walked 2 miles on the Wise Center indoor track.

I ran 3/8 mile in about 3:30, walked 1/8 mile in about 1:45 and repeated 3 more times for a total of 2 miles in 20:59. Running pace: 9:20/mile, Walking pace 14:00/mile

Wed Nov 14, 2018 **5 miles**

I ran on a treadmill in the Wise Center.

Warmup: 2.1 miles starting at about 10:00/mile, ending at 7:30/mile averaging 8:58/mile

Run: 6 x 0.2 miles at 7:09/mile pace with a 0.2 mile jog before each run. The 0.2 mile runs each took 85.7 seconds. The jogs before each 0.2 mile run took about 2:18.

Warmdown: ½ mile in about 5:30

Thur Nov 15, 2018 **2.25 miles**

On the Wise Center indoor track: 1 mile splits 4:55 + 4:35 = 9:30, rest 5 minutes

On a recumbant stationary bike:

50 calorie ride in 4:10 (final pulse: 137), 25 calorie slow ride

25 calorie ride in 1:58, 25 calorie slow ride

I take the bike riding to be equivalent to 1.25 miles of running.

Fri Nov 16, 2018 **3.5 miles**

Run: 3 miles on a treadmill in about 27 minutes. Approximate Splits: 9:30, 9:00, 8:30

Warm down: ½ mile in 5:00..

21 miles in the last week

Sat Nov 17, 2018 **5 miles**

I ran in Greendale Cemetery with 5 other runners. The temperature was about 35 degrees.

Greendale Cemetery is on the side of a hill with one end 0.75 miles away from the other. The elevation change is about 200 feet.

Warmup: 0.5 mile jog

Run: We ran 3 times from the top of the cemetery to the bottom and back up again, ie 1.5 miles for each run. Between each time down and up we rested a few minutes.

Times and average paces for the runs: 16:45 (11:10/mile), 15:22 (10:15/mile), 14:03 (9:22/mile)

Sun Nov 18, 2018 **3.5 miles**

I ran a mile on the Wise Center indoor track in 8:46. Splits: 4:36, 4:10

I rested for 6 minutes and ran 1.5 miles on a treadmill including a ½ mile in 3:47.

I rested a few minutes and walked a mile on the indoor track with Mary Jane in about 17:00.

Mon Nov 19, 2018 **6.5 miles**

Warmup: ½ mile to the Wise Center, rest 5 minutes and ½ mile on a treadmill in about 4:45

Run: 5 miles on a treadmill starting at about 9:10/mile and ending at 7:14/mile

Time and average pace for 5 miles: 41:35, 8:19/mile

Splits: 9:00, 8:44, 8:21, 7:58, 7:31

Warm down: ½ mile jog home

Tues Nov 20, 2018 **1.75 miles**

I ran on a treadmill in the Wise Center.

Warmup: 2 miles at various paces, some as fast as 7:41/mile. Ave. pace: 9:00/mile, rest 5:00

Run: ¼ mile jog, lead into a mile run in 7:32. Splits: 3:50, 3:42

Warm down: ½ mile jog

Wed Nov 21, 2018 **no running**

Thur Nov 22, 2018 **no running**

Fri Nov 23, 2018 **3.7 miles**

I ran in Greendale Cemetery. The Cemetery is on the side of a hill with one end 0.75 miles away from the other. The elevation change is about 200 feet.

Warmup: 0.35 mile jog and rest 3 minutes

Run: 2 times from the top of the cemetery to the bottom and back up again, ie 1.5 miles for each run. Between the 2 runs I rested a few minutes.

Times and average paces for the runs: 16:33 (11:02/mile), 14:19 (9:33/mile)

Warm down: rest 3 minutes and jog 0.35 miles

20.45 miles in the last week

Sat Nov 24, 2018 **3 miles**

Warmup: 0.3 mile jog

Run: 2 miles on the somewhat hilly cemetery loop in cold damp weather, Splits: 9:57, 9:21

Warm down: 0.7 mile jog

Sun Nov 25, 2018 **4.5 miles**

I ran 4.5 miles with Olivia Hemlock on very hilly roads and averaged 10:26/mile.

Mon Nov 26, 2018 **3.5 miles**

Warmup: 0.5 mile jog to Wise Center and rest a few minutes

Run: On a treadmill 2.25 miles at various paces some as fast as 7:09/mile.

Time: 20:09, Average pace: 8:57/mile

Warm down: 0.75 miles averaging about 10:15/mile

Tues Nov 27, 2018 **5.75 miles**

I ran on a treadmill in the Wise Center.

Warmup: 2 miles, splits: 8:58 and 8:15. The second mile I went faster as I ran and ended at 7:41/mile pace. 5 minute rest

Run: 8 x 0.2 miles at 7:09/mile pace with a 0.2 mile jog before each run. The 0.2 mile runs each took 85.7 seconds. The jogs before each 0.2 mile run took about 2:15.

Warm down: 0.3 miles in 3 minutes and 0.25 mile jog outdoors.

Wed Nov 28, 2018 **5 miles**

I ran on a treadmill in the Wise Center.

Warmup: 2 miles, splits: 8:59 and 8:05. The second mile I went faster as I ran and ended at 6:59/mile pace. 4 minute rest

Run: 6 x 0.2 miles at 6:59/mile pace with a 0.2 mile jog before each run. The 0.2 mile runs each took 83.7 seconds. The jogs before each 0.2 mile run took about 2:22.

Warm down: 0.6 miles in 6 minutes

Thur Nov 29, 2018 **4 miles**

Run: 3 miles in 26:59 on a treadmill at the Wise Center, Approximate splits: 9:30, 9:00, 8:30

Warm down: ½ mile in about 5:00 and ½ mile jog home

Fri Nov 30, 2018 **no running**

25.75 miles in the last week

Sat Dec 1, 2018 **4 miles**

Warmup: 2 miles on a treadmill, splits: 8:59, 8:39 with last $\frac{1}{4}$ mile in 2:00, rested 5 minutes

Run: 4 x 0.17 miles at 6:49/mile pace with a 0.23 mile jog before each run. The 0.17 mile runs each took 69.5 seconds. The jogs before each 0.17 mile run took about 2:50.

Warmdown: 0.4 miles in about 4 minutes

Sun Dec 2, 2018 **4 miles**

I walked and ran 4 miles on the Ernst Trail and averaged 11:55/mile. I walked about 0.1 miles at the beginning of each $\frac{1}{2}$ mile. Walk/Run Ratio: 0.25

Mon Dec 3, 2018 **4.5 miles**

Warmup: 2 miles on a Wise Center treadmill, splits: 8:58, 8:27 with last $\frac{1}{4}$ mile in 1:55 and rested 5 minutes

Run: 4 x 0.17 miles at 6:49/mile pace with a 0.23 mile jog before each run. The 0.17 mile runs each took 69.5 seconds. The jogs before each 0.17 mile run took about 2:40.

pulse at the end of first run: 143, pulse at the end of fourth run: 153

Warmdown: 0.4 miles in about 4 minutes and $\frac{1}{2}$ mile jog home.

Tues Dec 4, 2018 **4.5 miles**

Warmup: $\frac{1}{2}$ mile jog to the Wise Center

0.1 mile lead into 2 miles on a treadmill and rest 5 minutes, Splits for 2 mile 8:47, 8:27

Run: 0.1 mile lead into a 1 mile run

time for 1 mile: 7:22

$\frac{1}{4}$ mile splits: 1:52.5, 1:51.1, 1:49.8, 1:48.4

pulse at the end of the mile: 157 **Warm down:** 0.4 mile on treadmill and 0.5 mile jog home

Wed Dec 5, 2018 **4.75 miles**

I ran on the indoor track in the Wise Center.

Run: 3 x $\frac{1}{2}$ mile and 1 x 1 mile with a $\frac{1}{4}$ mile jog between.

Times: 4:27, 4:01, 4:24, $(4:16 + 3:58) = 8:14$

Warm down: $\frac{1}{2}$ mile jog on the track, rest 3 minutes, 1 mile on a treadmill in 8:59

Thur Dec 6, 2018 **7.1 miles**

I ran on a treadmill in the Wise Center.

Warmup: 2 miles, splits: 9:28, 8:28, 8 minute rest

Run: a 0.1 mile lead into a 5 mile run in 39:59, splits: 8:06, 8:00, 8:00, 8:00, 7:53

Warm down: a 4 minute rest and $\frac{1}{4}$ mile jog on the indoor track

Fri Dec 7, 2018 **3 miles**

I ran on the Wise Center indoor track. I always run wide on the track so each lap is $\frac{1}{8}$ mile

Warmup: 1 mile going faster with each lap, time: 9:29 and rest 3 minutes

Run: 8 x $\frac{1}{8}$ mile with $\frac{1}{8}$ mile jog after each,

average time for runs: 57.8, last run: 51.3, average time for jogs: about 90s.

31.85 miles in the last week

Sat Dec 8, 2018 **no running**

Sun Dec 9, 2018 **9.5 miles**

Warm up: ½ mile to the Wise Center in about 5 minutes, 1 mile on the indoor track in 8:53 and a 7 minute rest

Run: On a treadmill, 10 x ½ mile with a ¼ mile jog before each run.

Times for the runs: The first 6 in 4:00, the next 3 in 3:56.8 and the last one in 3:53.8

Pulses at the end of each run 147, 148, 150, 151, 150, 150, 151, 151, 151, 152

Times for the ¼ mile jogs before each run about 3 minutes.

Warm down: ½ mile in about 6 minutes

Note: The easiest run was the 6th one.

Mon Dec 10, 2018 **3.5 miles**

Warmup: ½ mile to Wise Center

Run/walk: On indoor track, run 3/8 mile, walk 1/8 mile and repeat until 3 miles completed. Average pace: about 11:20/mile

Tues Dec 11, 2018 **3.5 miles**

I ran and walked 3.5 miles on the Wise Center indoor track and averaged 10:57/mile.

**Using heart rate (HR) to evaluate level of fitness.
(In my case I call this a “142 beats per minute test”).**

A runner's level of fitness varies with time. I use my heart rate to help evaluate my level of fitness. Lately while running on a treadmill and wearing a heart rate monitor, I do the following.

- 1. Warm up with a mile at about 9:00 – 9:30/mile pace and rest a few minutes.**
- 2. Start running at about 8:35/mile pace and then adjust pace so that HR is $HR_0 = 142 \pm 1$ bpm.**
- 3. Use a watch to record mile splits and stop running when the split exceeds $T_{max} = 8:45$**
- 4. The more miles I am able to run without reaching 8:45/mile, the better my fitness.**

If another runner wants to perform the test mentioned above they will need to establish values for HR_0 and T_{max} in the following way.

- 1. On a treadmill, the runner should warm up, rest a few minutes and then run at a pace near their average half marathon pace (this pace can be estimated). Their HR after running a mile is HR_0 .**
- 2. Next continue running but now adjust pace up and down in order to keep HR near HR_0 . Record mile splits on a watch. The split for the 3rd mile is T_{max} .**

Continued

Notes: During subsequent tests, if more miles are run before the last mile split reaches Tmax or the mile splits are less than previously, then the runner's fitness has presumably improved. Also, the same values of HR0 and Tmax should always be used unless the level of fitness changes a great deal.

Wed Dec 12, 2018 **5 miles**

I performed a 142 bpm test on a Wise Center treadmill.

Warmup: 1 mile in 9:27 and rested 6 minutes.

Run: 4 miles continually adjusting pace so that my HR stayed near HR0=142 bpm.

Mile Splits: 8:39, 8:38, 8:44, 8:46

I stopped running after 4 miles because the fourth mile split was greater than Tmax=8:45.

Thur Dec 13, 2018 **6.5 miles**

Warmup: ½ mile to Wise Center and rested a few minutes

On a treadmill I ran 2 miles at various paces some as fast as 7:41/mile and rested 8:00.

2 mile splits: 9:00, 8:26

Run: ¼ mile lead into a 3 mile run in 23:35 or 7:51.7/mile

I ran the first 2.5 miles at 7:54/mile pace and then faster for the last ½ mile.

Pulse at the end of each mile: 153, 156, 158

Warm down: ¼ mile in about 2:30

Fri Dec 14, 2018 **3.5 miles**

3 miles on a treadmill at various paces averaging 9:00/mile and ½ mile jog home

31.5 miles in the last week

Sat Dec 15, 2018 **4 miles**

Warmup: 1 mile on the Wise Center indoor track going faster as I ran, time 8:54 and rested 10 minutes, 1 mile on a treadmill in 8:27 at various paces some as fast as 7:41/mile and rested 4:00

Run: 1.5 miles on a treadmill including:

¼ mile at about 10:00/mile

¾ miles at 7:30/mile

¼ mile at about 10:00/mile

Warm down: ½ mile jog home

Sun Dec 16, 2018 **5.5 miles**

Warmup: ½ mile to the Wise Center and rest a few minutes.

1 mile on a treadmill in 9:07 and rest a few minutes.

Run: I did a 142 bpm test. After about a half mile I held my heart rate near 142 bpm by continually adjusting my pace. Mile splits: 8:32, 8:34, 8:35, 8:35. Pulses at the end of each mile: 143, 142, 142, 142. Mile splits were a good deal lower today compared to last Wednesday.

Mon Dec 17, 2018 **4.5 miles**

Warmup: 1 mile on a Wise Center treadmill in 9:03 running faster as I ran.

Rested about 8 minutes.

Run: 2 x 0.75 miles at 7:30/mile pace, pulses at the end of each run were 152 and 153

I jogged a ½ mile before each run and ½ mile after the second one.

Warm down: ½ mile jog home

Tues Dec 18, 2018 **5 miles**

Warmup: 1.5 miles on a Wise Center treadmill at various paces some as fast as 7:41/mile and averaging 8:45/mile, a 10 minute rest

Run: 3 x ½ mile and 1 x 1 mile. I lead into the first run with a ¼ mile in 2:30 and I ran a ¼ mile after each run in about 3:00. Time and pulse at the end of each run:

4:00 (138 bpm), 3:57 (142 bpm), 3:51 (147 bpm), 7:30 (154 bpm)

Wed Dec 19, 2018 **5 miles**

Warmup: 1 mile on a Wise Center treadmill in 9:00 going faster as I ran and ending at 7:41/mile, then a 4 minute rest

Run: I did a 142 bpm test. After about a half mile I held my heart rate near 142 bpm by continually adjusting my pace. Mile splits: 8:20, 8:20, 8:26, 8:31. Pulses at the end of each mile: 142, 142, 142, 141. My mile splits were again lower today compared to last Wednesday and last Sunday. The interval training I started 1.5 months ago is paying off.

Thurs Dec 20, 2018 **2.5 miles** on very hilly roads averaging about 11:00/mile

Fri Dec 21, 2018 **4.5 miles**

Warmup: 2 miles on a Wise Center treadmill, splits: 9:00, 8:40 and rest 4 minutes

Run: 1 x 1 mile and 1 x ½ mile with ¼ mile jogs before the mile and after the ½ mile and ½ mile jog between the 2 runs. mile time: 7:52, ½ mile time: 3:40

31 miles in the last week

Sat Dec 22, 2018 **4 miles**

I ran on a YMCA treadmill

Warmup: 2 miles averaging about 9:00/mile and a 4:00 rest

Run: 1 x ½ mile and 2 x ¼ mile with ¼ mile jogs before each run and a ¼ mile jog at the end

½ mile time 4:00, ¼ mile times: 2:00, 2:00

Sun Dec 23, 2018 **4.5 miles**

I ran on a YMCA treadmill.

Warmup: 2 miles, splits: 8:58, 8:26, and a 4:00 rest

Run: 2 x ¼ mile and 1 x ½ mile with ¼ mile jogs before each run and a ½ mile jog at the end

¼ mile times: 2:00, 2:00 and ½ mile time: 3:50, The jogs were at about 12:00/mile pace

Mon Dec 24, 2018 **5.5 miles**

I ran 5 miles on a YMCA treadmill.

Splits and pulses at the end of each mile:

8:58 (138), 8:34 (140), 8:30 (142), 8:33 (142), 8:00 (153)

Warm down: rest about 4:00 and ½ mile in about 5:00

Tues Dec 25, 2018 **no running** We flew to Amsterdam

Wed Dec 26, 2018 **2 miles** walking and running in Amsterdam at various paces

Thurs Dec 27, 2018 **5.25 miles**

Warmup: ½ mile to the Sportcentrum VU and a few minute rest

Run: 4 miles on a treadmill going faster as I ran, splits: 8:55, 8:45, 8:28, 7:45

Pulse at the end of the 4 mile run: 157 bpm

Warm down: ¼ mile in about 2:30 on treadmill, rest a few minutes and ½ mile jog outside

Fri Dec 28, 2018 **1.5 miles** walking and running in Amsterdam at various paces

Miles in the last week: 22.75

Sat Dec 29, 2018 **5.7 miles**

Warmup: 0.5 miles to the Sportcentrum VU and rest a few minutes

1.5 miles on a treadmill, splits 8:58, 4:17 and rest about 5:00

Run: 0.1 mile lead into a 3.1 mile run, time for 3.1 miles: 23:48 or 7:40.6/mile

Splits: 7:54, 7:44, 7:30, 0:40 Pulse at the end of 3.1 miles: **164 bpm**

Warm down: 0.1 mile on treadmill, rest a few minutes and 0.5 mile outside

The six weeks of fast running including interval training and the last easy week has had a definite effect. Today my heart rate was able to reach 164 bpm which is considerably higher than it has been recently. Also, I ran much more easily than I have in a long time.

Sun Dec 30, 2018 **5.65 miles**

Warmup: 1 mile jog on roads and 1 mile on a Sportcentrum treadmill in 8:50, rest about 4:00

Run: After a 0.15 mile lead in, I did a 3 mile 142 bpm test.

Splits and pulses at the end of each mile: 8:14 (142), 8:24 (142), 8:21 (142)

Compare splits to those on Dec 19, 2018. On average they are slightly lower today.

Mon Dec 31, 2018 **no running - I ran 1596 miles in 2018**

Tues Jan 1, 2018 **4.5 miles**

Warmup: ¼ mile

Run: 4 miles on bike paths, Time: 35:26 (8:51/mile), Splits: 8:52, 8:23, 9:05, 9:06

Warm down: ¼ mile

Wed Jan 2, 2019 **6 miles**

Warmup: ½ mile to the Sportcentrum VU and rested a few minutes, 1 mile on a treadmill at various paces in 8:47 including some as fast as 7:47/mile, rested a few minutes

Run: 3 x 1 mile with a ¼ mile jog before each run and a ¼ mile jog at the end

1 mile times and pulses at the end of each mile:

7:58 (137 bpm), 7:43 (144 bpm), 7:20 (154 bpm)

Warm down: ½ mile outside

Fri Jan 4, 2018 **4 miles**

Warmup: ½ mi to the Sportcentrum VU, rested a few minutes, 1 mile on treadmill in 8:44 and rested about 3:00

Run: ¼ mile lead into a 2 mile run, Time 15:17, Splits: 7:50, 7:27

My pulse stayed at 161 or 162 for the whole second mile.

Warm down: ½ mile jog outside

Workouts lately seem easy. I want to check the calibration of the treadmill.

I assumed the treadmill belt length to be 3.32 meters as found online, and set the treadmill for 12.5 km/hour. At this setting it made 36 cycles in 34.1 seconds. Therefore one cycle took $34.1/36 = 0.947$ seconds. So the speed of the treadmill at this setting is $3.32/0.947 = 3.506$ m/s. Converting this speed to km/hr we have: $(3.506 \text{ m/s}) \cdot (.001 \text{ km/m}) \cdot (3600 \text{ s/hr}) = 12.6 \text{ km/hr}$ (this is very close to the treadmill setting. Therefore it is calibrated correctly)

25.85 miles in the last week

Sat Jan 5, 2019 **4.25 miles**

Warmup: ½ mile to the Sportcentrum VU, 1 mile on a treadmill in 8:45, rest about 3:00

Run: 0.05 mile lead into a 2 mile 142 bpm test,
mile times and pulses at the end of each mile: 8:11 (142), 8:24 (142)

Compare test to one on Dec 30

Warm down: 0.2 mile on treadmill and ½ mile outside

Sun Jan 6, 2019 **no running**

Mon Jan 7, 2019 **5.1 miles**

Warmup: ½ mile on a bike path and 0.1 mile on a treadmill

Run: 4 miles on a Sportcentrum treadmill,
Time: Splits and pulses: 8:55 (137 bpm), 8:27 (143 bpm), 8:32 (142 bpm), 7:34 (164 bpm)
I ended the last mile a good deal under 7:00/mile pace and my pulse rose to 164 bpm.

Warm down: ½ mile on a bike path

Tues Jan 8, 2019 **3 miles**

I ran 1 mile and walked 2 miles on bike and walking paths in Amsterdam.

Wed Jan 9, 2019 **5.15 miles**

Warmup: ½ miles to the Sportcentrum VU, rest about 5:00 and a 0.1 mile lead into a 1 mile on a treadmill, time for 1 mile: 8:50, about a 3 minute rest

Run: 0.1 mile lead into a 4 mile 142 bpm test,
mile times and pulses at the end of each mile: 8:06 (143), 8:16 (141), 8:23 (142), 8:30 (142)
This is the best recent result for a 142 bpm test. Compare today's splits to ones on Dec 12

Warm down: ½ mile outside

Thur Jan 10, 2019 **3 miles**

I ran 1 mile and walked 2 miles on bike and walking paths in Amsterdam.

Fri Jan 11, 2019 **9.15 miles**

Warm up: ½ mile to the Sportcentrum VU, and rest a few minutes,
a 0.1 mile lead into 1 mile on a treadmill, time for mile 8:33, a 3 minute rest

Run: On a treadmill, (¼ mile jogs before each run took about 3:00)

3 x ½ mile with a ¼ mile jog before each run, Average time of 3 runs: 4:00

3 x ½ mile with a ¼ mile jog before each run, Average time of 3 runs: 3:55

1 x 2 mile with a ¼ mile jog before the 2 mile run, Mile splits for the 2 mile: 7:47, 7:26

Pulses at the end of each run 142, 142, 143, 147, 149, 151, 162,

Times for the ¼ mile jogs before each run about 3 minutes.

Warm down: ½ mile in about 6 minutes

Note: I felt much better than for the similar workout on Dec 9, 2018, probably because my heart is now able to beat at a higher rate as I have been training to have it do.

29.65 miles in the last week

Sat Jan 12, 2019 **1 mile**

I ran 1 mile on a bike path in Amsterdam in 9:25

Sun Jan 13, 2019 **4.5 miles**

Warmup: no warmup

Run: I ran 4 miles in 34:04 on bike paths. Mile splits: 8:42, 8:45, 8:33, 8:23

Pulse at the end of the run: 151

Warm down: ½ mile jog

Mon Jan 14, 2019 **3 miles**

I ran 1 mile and walked 2 miles on bike and walking paths in Amsterdam.

Tues Jan 15, 2019 **7 miles**

Warmup: 1 mile on bike paths, rest about 7:00 and a 0.3 mile lead into a 142 bpm test

Run: 5 mile 142 bpm test,
mile times and pulses at the end of each mile: 8:14 (142), 8:26 (142), 8:27 (142),
8:25 (142), 8:30 (142)

Warm down: 0.2 miles on the treadmill and ½ mile outside

Wed Jan 16, 2019 **5.1 miles**

Warmup: ½ mile to the Sportcentrum VU and 0.1 miles on a treadmill

Run: I ran 4 miles in 33:31 on a treadmill. Mile splits and pulses at the end of each mile:

8:45 (130), 8:30 (138), 8:15 (146), 8:01 (151)

Warm down: ½ mile jog outside

Thur Jan 17, 2018 **no running**

Fri Jan 18, 2019 **5.15 miles**

Warmup: ½ mile to the Sportcentrum VU and 0.15 miles on a treadmill

Run: I ran 4 miles in 33:35 on a treadmill. Mile splits and pulses at the end of each mile:

8:46 (133), 8:31 (141), 8:14 (147), 8:04 (151)

Warm down: ½ mile jog outside

This workout was essentially the same as 2 days ago.

25.75 miles in the last week

Sat Jan 19, 2019 **3.9 miles**

Warmup: ½ mile to the Sportcentrum VU and rest a few minutes

1.5 miles on a treadmill averaging about 8:45/mile and rest about 4 minutes

Run: 0.15 mile lead into a 1 mile run in 7:13, ¼ mile splits: 1:50, 1:50, 1:48, 1:45

I ran the last 0.2 miles under 7:00/mile pace. Pulse at the end of run: 158 bpm

Warmdown: rest a few minutes and jog ¾ mile outside

Sun Jan 20, 2019 **no running**

We flew from Amsterdam to Pittsburgh.

Mon Jan 21, 2019 **no running**

We flew from Pittsburgh to Palm Springs California.

Tues Jan 22, 2019 **4.5 miles**

I ran on a ½ mile road loop in Palm Springs.

Warmup: ¼ mile run and rest a few minutes

Run: 5 x ½ mile with a four minute rest after each run

Times for the ½ mile runs: 4:40, 4:07, 4:00, 4:04, 3:43

Warm down: 1.75 mile jog

Wed Jan 23, 2019 **6 miles**

Warmup: 3 mile jog on roads in Palm Springs and rest about 8 minutes

This seemed to be a good warm up even though it did not include any fast running.

Run: 2 miles on the same ½ mile loop as yesterday Time: 15:57 or 7:59/mile

½ mile splits: 4:11, 4:05, 4:00, 3:41

Warm down: 1 mile in about 11:00

Thur Jan 24, 2019 **3.5 miles**

I ran on the same ½ mile loop that I have been using.

Warmup: I walked and ran 2 miles averaging 11:20/mile. At the beginning of each ½ mile I walked about 0.1 miles. I rested about 4:00

Run: 2 x ½ mile with a ¼ mile jog between. ½ mile times: 3:59, 4:20

Warm down: ¼ mile jog

Fri Jan 25, 2019 **5.85 miles** on the same ½ mile loop

Warmup: 2 miles on the ½ mile loop, Splits: 9:05, 8:24 and rest about 4:00

Run: 9 x 0.17 with a 0.23 mile jog after each run, jogs at about 12:00/mile

Times for the 0.17 mile runs: 68s, 70s, 72s, 70s, 68s, 66s, 70s, 69s, 65.6, Average: 68.6

Average pace for the 9 runs: 6:44/mile, pace for last run: 6:26/mile.

Warm down: 0.25 jog

Miles in the last week: 23.75

Sat Jan 26, 2019 **5.5 miles** on the same ½ mile loop

Run: 5 miles in 41:55 Average pace 8:23/mile

Mile splits: 8:40, 8:36, 8:26, 8:15, 7:58

Warm down: ½ mile in about 6:00

Sun Jan 27, 2019 **6 miles A similar workout to 2 days ago**

Warmup: 2 miles on the ½ mile loop, Splits: 9:04, 8:27 and rest about 4:00

Run: 9 x 0.17 with a 0.23 mile jog after each run, jogs at about 12:00/mile

Times for the 0.17 mile runs: 65s, 72s, 68s, 69s, 66s, 70s, 72s, 66s, 63.8

Average: 67.6

Average pace for the 9 runs: 6:38/mile, pace for last run: 6:15/mile.

Warm down: 0.6 jog

Mon Jan 28, 2019 **no running, We flew home.**

Tues Jan 29, 2019 **3 miles**

I ran 3 miles on a Wise Center treadmill in 27:01. Splits: 9:28, 8:53, 8:40

Wed Jan 30, 2019 **no running**

The windchill was below zero and the Wise Center was closed.

Thur Jan 31, 2019 **no running**

The windchill was below zero and the Wise Center was closed.

Fri Feb 1, 2019 **4.5 miles**

Run: I ran 4 miles on a Wise Center treadmill in 33:48 or 8:27/mile.

Splits: 8:58, 8:28, 8:02, 8:20

Pulse after 3 miles: 154, Pulse after 4 miles 152

Warm down: A few minutes rest and a ½ mile jog on the indoor track

Miles in the last week: 19

Sat Feb 2, 2019 **4.6 miles**

Run and walk: on the Wise Center indoor track, I ran 3/8 mile, walked 1/8 mile and repeated until I reached 4 miles in 42:46.

Mile splits: 10:59, 10:48, 10:35, 10:24

Warm down: 0.6 mile walk

Sun Feb 3, 2019 **2 miles**

I ran 2 miles on hilly roads in about 22 minutes.

Mon Feb 4, 2019 **5 miles**

Warmup: ½ mile run to the Wise Center

Run: 4 miles on a treadmill in 36:00, each mile was close to 9:00

Warm down: ½ mile home

Tues Feb 5, 2019 **5 miles**

Warmup: ½ mile run to the Wise Center

Run and walk: 4.5 miles on the indoor track in 50:18 or 11:11/mile

I walked about 75 yards during each half mile.

Wed Feb 6, 2019 **5.05 miles**

Warmup: 2 miles on a Wise Center treadmill in 18:01, Final pulse:135, rest 3:00

Run: 7 x 0.15 miles with a ¼ mile jog before each run, each 0.15 mile run took 63 seconds which corresponds to 6:59/mile pace. These runs felt relatively easy.

Pulse after first run:150, pulse after seventh one: 157

The ¼ mile jogs took about 3:00

Warm down: ¼ mile jog

Thur Feb 7, 2019 **5 miles**

I ran and walked 5 miles on slightly hilly roads and averaged 11:11/mile.

I walked about 0.05 miles during each half mile.

Fri Feb 8, 2019 **no running**

In the last week 26.65 miles

Sat Feb 9, 2019 **4.2 miles**

Warmup: I ran 2 miles on a Wise Center treadmill. Splits: 8:59, 8:41, 9 minutes rest

Run: 0.2 mile lead into a 1 mile run. Time for the mile: 7:36

I started running at 7:47/mile pace and ended at 6:40/mile pace. Ending pulse: 160

Warm down: 1 mile in 9:51 going faster as I ran

Sun Feb 10, 2019 **no running**

I injured my right knee slightly picking up something while in an awkward position.

Mon Feb 11, 2019 **4 miles**

My right knee is still somewhat sore.

Warmup: I massaged my right leg

Workout: I did a 200 calorie ride on a Wise Center recumbent exercise bike set at level 12 with my weight entered as 128 pounds. Then I rested a few minutes, ran and walked 1.25 miles on the indoor track, rested a few minutes, and did a 75 calorie ride. **I take a 100 calorie ride to be equivalent to a mile run. Riding the bike may help my knee.**

Tues Feb 12, 2019 **4 miles**

When massaging my right leg, I found that the component of the quadriceps called the vastus medialis above my right knee was very tight. I also read that this could cause the knee pain that I have been experiencing. I continued to massage that particular muscle, and felt more and more discomfort in it. From similar experiences with other muscles I know that this kind of massage is necessary to loosen the muscle.

Run: On a Wise Center treadmill I cautiously ran 4 miles starting at 10:00/mile and ending at 9:00/mile and averaging about 9:30/mile. My knee felt okay.

Wed Feb 13, 2019 **4.25 miles**

My right knee continues to improve. I am still massaging the vastus medialis muscle.

Warmup: 1 mile on a Wise Center treadmill in about 9:00 and rested 4 minutes

Run: 4 x ½ mile in 4:13.5 with a ¼ mile jog before each run. Jogs were in about 3:00.

Warm down: ¼ mile jog

Thur Feb 14, 2019 **no running**

Fri Feb 15, 2019 **5.3 miles**

Warmup: 1 mile jog on a hilly road.

Run: 4 x ½ mile uphill (6% grade) with ½ mile down the same hill after each run

Uphill times and final pulses: 5:37 (146), 5:26 (151), 5:02 (161), 4:52 (164)

Average uphill pace: 10:28/mile **Average down hill pace:** 9:50/mile

Warm down: 0.3 mile jog

In the last week: 21.75 miles

Sat Feb 16, 2019 **5.25 miles**

Warmup: ½ mile to the Wise Center and rest a few minutes

1.5 miles on a treadmill averaging 9:00/mile

Run: 5 x ½ mile on a treadmill with ¼ mile jogs before each run

Times and pulses at the end of each run:

4:00 (147), 3:56.8 (153), 3:53.8 (158), 3:50.8 (160), 3:45 (163)

The ¼ mile jogs took about 3 minutes. **Warm down:** ¼ mile jog

Sun Feb 17, 2019 **5.05 miles**

Warmup: ½ mile to the Wise Center and rest a few minutes

Run on the indoor track: 2 miles, Splits: 9:36, 9:07 and rest 6 minutes

Run on a treadmill: a 0.05 jog lead into a 2 mile run, Splits: 8:49, 7:55

I started the second mile running at 8:08/mile and ended at 7:24/mile.

My pulse rose to 157 bpm. **Warm down:** ½ mile at about 10:00/mile

Mon Feb 18, 2019 **no running**

Tues Feb 19, 2019 **5.9 miles** on a Wise Center treadmill.

Warmup: 1.5 miles averaging 9:00/mile and a 4 minute rest

Run: I ran a 4 mile 142 bpm test. (See Tues Dec 11, 2018)

After a 0.1mile lead in, I ran 4 miles while keeping my heart rate at 142 bpm.

Mile splits and pulses at the end of each mile:

8:15 (142), 8:30 (142), 8:33 (142), 8:38 (143)

Today my splits were slightly slower than in Amsterdam on Dec 30 and Jan 9, Jan 15.

Also ½ mile pulses 3 days ago were higher than in Amsterdam on Dec 18,

Treadmill calibrations were different or the fast runs I have been doing has tired my some.

Wed Feb 20, 2019 **4.85 miles**

Run: On a Wise Center treadmill: 4 mile run, Average pace: 8:32/mi

Splits: 8:56, 8:44, 8:30, (4:09+3:49) = 7:58

Pace at end of run 7:14/mi, Pulse at end of 4 mile run 158 bpm

Warm down: ½ mile on the treadmill in about 5 min and 0.35 mile jog outside

Thur Feb 21, 2019 **4.25 miles**, I ran 4 miles with Tiffany Hrach on the Wise Center indoor track including 4 x ½ mile with a ¼ mile jog after each run. Times for runs: 4:29, 4:33, 4:23, 4:23, Times for jogs about 3:00. We walked ¼ mile to warm down.

Fri Feb 22, 2019 **5.1 miles** on a Wise Center Treadmill (Compare to Feb 6, 2019)

Warmup: 1.5 miles in 13:29 Final pulse:128, rest 4:00

Run: 7 x 0.15 miles and 1 x 0.3 miles with a ¼ mile jog before each run, each 0.15 mile run took 62 seconds and the 0.3 miles took 2:04, i.e. all at 6:54/mile pace.

Pulse after first run:147, pulse after seventh run: 152, pulse after 0.3 mile run: 154 bpm

The ¼ mile jogs took about 3:00 **Warm down:** ¼ miles in about 3:00.

In the last week: 30.4 miles

Sat Feb 23, 2019 **7.25 miles**

I ran on a treadmill in the Wise Center.

Run: A 0.1 mile lead into a 5.1 mile run, Time for 5.1 miles: 45:33 or 8:18/mile

Splits for 5.1 miles: 8:59, 8:40, 8:20, 7:58, 7:40, 0:45

Last 5K in 24:43 or 7:58/mile, Final pulse: 160 bpm

Warm down: 0.3 miles on the treadmill, 1.25 miles on the indoor track with Tiffany and Veronica and 0.5 miles home

Sun Feb 24, 2019 **2.5 miles**

I did a 100 calorie ride on a Wise Center recumbent bike on level 12. Time: 8:51

I went fast in the beginning and at the end and could feel the ride took a good deal out of my legs. I take the ride as equivalent to 1 mile of running. After a few minutes rest I ran 1.25 miles on the indoor track at about 10:00/mile and then walked ¼ mile.

Mon Feb 25, 2019 **4.5 miles**

Run: 4 miles on a Wise Center treadmill going faster as I ran. Average pace 8:20/mile

Warmdown: ½ mile in about 5 minutes

Tues Feb 26, 2019 **4 miles**

Run/walk: I walked about 0.15 miles at the beginning of each mile and covered 4 miles at close to 11:00/mile. Walking pace: 15:00/mile, Running pace: 10:20/mile

Wed Feb 27, 2019 **6.1 miles** on a Wise Center Treadmill

Warmup: 1.6 miles including 1.5 miles at 8:50/mile, rest 4:00

Run: 8 x 0.2 miles with a 0.3 mile jog before each run, each 0.2 mile run took 83 s, or 6:54/mile pace. Pulse after first run: 149, pulse after 8th run: 156, The 0.3 mile jogs were at about 12:00/mile pace

Warm down: ½ mile in about 5:00.

Thur Feb 28, 2019 **4.75 miles**, I ran 4.5 miles with Tiffany Hrach on the Wise Center indoor track including 5 x ½ mile with a ¼ mile jog after each run. Times for runs: 4:30, 4:28, 4:31, 4:28, 4:22, Times for jogs about 3:00. We walked ¼ mile to warm down.

Fri March 1, 2019 **no running**

In the last week: 29 miles

Sat March 2, 2019 **4.05 miles**

Run: 1.3 miles on a treadmill including 1 mile in 8:59 and $\frac{1}{4}$ mile in 2:00, a few minute rest and 1 mile run on the indoor track in $(4:40 + 4:03) = 8:43$ and a $\frac{3}{4}$ mile walk with Mary Jane

On a recumbent stationary bike: a 100 calorie ride on level 12 in 9:43

Sun March 3, 2019 **5.5 miles**

Run: On a Wise Center treadmill 5 miles in 44:18 or 8:52/mile,

Splits: 9:29, 9:01, 8:55, 8:30, 8:23, Final pulse: 148 bpm

My pulse was unexpectedly high during the run and I felt more tired than usual. Also I think I may be starting a cold.

Warmdown: $\frac{1}{2}$ mile in about 5:00

Mon March 4, 2019 **no running**, I have a cold with chest congestion.

Tues March 5, 2019 **no running**, My cold is somewhat better.

Wed March 6, 2019 **no running**,

Thur March 7, 2019 **4.1 miles**

On the Wise Center indoor track: 1 mile in $(4:55 + 4:35) = 9:30$, rest a few minutes

$\frac{1}{4}$ mile in 1:59 and jog $\frac{1}{4}$ mile.

On a treadmill: 0.1 mile lead into a 2 mile run, Splits 8:55, 8:19

$\frac{1}{2}$ mile in about 5:00

Fri March 8, 2019 **4.5 miles**

I was going to run 5 miles as I did last Sunday but I stopped at 4 miles because I felt noticeably more tired than I did last Sunday. The cold I have had since then has taken some energy out of me.

Run: On a Wise Center treadmill 4 miles in 35:48 or 8:57/mile,

Splits: 9:31, 8:59, 8:54, 8:22 Final pulse: 147 bpm

Warmdown: rested a few minutes and $\frac{1}{2}$ mile in about 5:00

I the past week: 18.15 miles

Sat March 9, 2019 **7.5 miles**

On a Wise Center Treadmill:

1 mile in 8:58 and rest 3 minutes

4 x ½ mile with a ¼ mile jog before each run. The jogs were in about 3:00.

Times and pulses at the end of ½ miles:

4:00 (145), 4:00 (148), 4:00 (152), 3:49 (156)

1 mile in about 10 minutes and rest a few minutes

On the indoor track: 1 mile of walking and running

Outside: 1.5 miles including ½ mile uphill in just under 5:00

I felt a lot better than yesterday. The effects of my cold are getting less.

Sun March 10, 2019 **5 miles**

I ran 5 miles on a Wise Center treadmill.

Time: 47:30, Every mile was about 9:30.

Pulses at the end of each mile: 121, 125, 129, 131, 133 bpm

Mon March 11, 2019 **5.5 miles**

Warmup: ½ mile jog to the Wise Center, 1 mile on a treadmill in 9:00, 4:00 rest

Run: After a 0.1 mile lead in, I did a 142 bpm test. I held my pulse near 142 bpm and ran 3 miles.

Mile times and pulses: 8:10 (142), 8:32 (142), 8:43 (142)

My times were slower today than for previous 142 bpm tests.

Warmdown: 0.4 miles treadmill warm down in 4:00 and ½ mile jog home

Tues March 12, 2019 **3 miles** On a recumbent bike in the Wise Center:

a 200 calorie ride with the weight setting at 127 pounds and a level of 12

Time for 200 calories: 19:25, Final heart rate: 110 bpm

After a 4:00 rest I did a 100 calorie ride.

Time for 100 calories: 8:56, Final heart rate: 128

I take 300 calories expended while riding as equivalent to 3 miles of running.

Wed March 13, 2019 **5.25 miles**

Warmup: ½ mile run down to the Wise Center and rest a few minutes

On recumbent bike: 300 calorie ride, weight set at 127 lbs and level at 12.

Time for 300 calories: 27:58

After a 4:00 rest I did a 100 calorie ride.

Time for 100 calories: 8:03, Final heart rate: 162

I take 400 calories expended while riding as equivalent to 4 miles of running.

Warm down: 25 calorie ride, rest a few minutes and ½ mile jog home

Thur March 14, 2019 **3 miles** on a Wise Center recumbent bike (127 lbs, level 12)

Warm up: 100 calorie ride in 9:50

On bike: 4 x 25 calories ride with 25 calorie slow rides after each. The slow rides were all in about 2:40.

Times and pulses after faster rides: 2:17 (128), 1:57 (133), 2:03 (143), 1:58 (149) I I

I take 300 calories expended while riding as equivalent to 3 miles of running.