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"I'M A RUNNER!"

# AGE 60 TO 90

## 1 OLD AGE RUNNING MADE SIMPLE:

Running late in life can be rewarding for its health benefits but is at least as beneficial for one's social and mental well-being. You will run slower and slower in absolute speeds. But using age graded results your time can actually improve.

You will certainly be more susceptible to overuse injuries. But with some brains and listening to your body, injuries can be avoided or at least kept to a minimum in number and severity.

Another way to describe the benefits Old Age Running:

"When I look out of my eyes I feel like I'm 52 years old. It's only when I look into a mirror I see a very, very old great grandfather. So, which am I? Well, I only look into a mirror once or twice a day while I look out of my eyes for 16 hours or so….therefore, I'm clearly 52! How can you argue with that?"

### 1.1 WHAT YOU'LL FIND IN THIS ARTICLE:

1. Age Related Changes in Running
2. Health Benefits
3. Avoiding Injuries
4. Avoiding Injuries

## 1.2 RUNNING LATE IN LIFE:

Here's a simple summary:

What gets worse with age:

1. Absolute times.
2. Risks associated with high mileage > 40 to 50 miles (65 to 80 km per week).
3. Risks associated with faster running.
4. Recovery time from hard workouts and racing.

What doesn't get worse:

1. Health benefits.
2. Social benefits.
3. Age graded times.

**In summary, things that don't matter get worse. Things that do matter don't.**

Running and other vigorous exercise at any age is beneficial but it becomes more apparent with older age. Take a 25 year old, for example, except for those folks who are clearly obese, the difference between someone fit enough to run a marathon and those sedentary is not so obvious.

As we get older the difference between some fit and the normal population becomes apparent at first glance. From my experience, not a week goes by that a stranger doesn't comment how fit and trim I look at 5' 9"/ 132 lbs. or 175 cm/ 60 kg. At first I was taken aback by those comments. It's now so familiar I am no longer surprised. It does motivate me to continue to work hard.

This article is mostly about running late in life. But any exercise which gets the heart rate up to 130 to 140 bpm for 1 hour per day most days will do the trick. In fact, the best form of exercise is a balance between running, cycling, swimming, strength and flexibility training. Of course these folks are Tri Athletes and are my heroes. (I only wish I could swim!)

### 1.2.1 **What are the specific Health Benefits?**

Below you can see a spread sheet covering actual cardiovascular data. It shows how running (in this case) can affect important measures of heart health. All these measurements are well above average (some are even in the 1 percentile) and demonstrate the value of vigorous exercise.

| CALENDAR YEAR | NOTE | 2001 / 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
|---|---|---|---|---|---|---|---|---|
| AGE (JAN.28) | | 64 | 65 | 66 | 67 | 68 | 69 | 70 |
| TYPICAL WEIGHT (LBS) | 1 | 176 | 132 | 132 | 32 | 132 | 132 | 132 |
| BLOOD PRESSURE | 1 | 120/ 60 | 114/ 60 | 108/ 52 | 110/ 62 | 102/ 60 | 115/ 62 | 126/ 66 |
| LDL (BAD) REF. <100 | 2 | 100 | 98 | 85 | 91 | 94 | 117 | 106 |
| HDL (GOOD) REF. >40 | 2 | 70 | 66 | 80 | 73 | 69 | 76 | 73 |
| TRIGLYCERIDES | 2 | 85 | 44 | 51 | 115 | 62 | 102 | 56 |

| 2008 | 2009 | 2010 | 2011 | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|---|---|---|---|
| 70 | 71 | 72 | 73 | 73 | 74 | 75 | 76 | 77 |
| 132 | 132 | 130 | 130 | 130 | 130 | 130 | 130 | 128 |
| 126/ 66 | 112/ 63 | 125/ 74 | 126/ 68 | 127/ 60 | 124/ 60 | 120/ 65 | 119/ 65 | 120/ 65 |
| 80 | 73 | 90 | 73 | 95 | 88 | 78 | 80 | 97 |
| 85 | 75 | 68 | 87 | 89 | 88 | 89 | 90 | 85 |
| 59 | 63 | 71 | 46 | 70 | 45 | 50 | 69 | 86 |

### 1.2.2 PRAVASTATIN

At several times different medical doctors have recommended certain medicines and supplements. For me, none have shown demonstrated benefits outweighing the side effects. While many doctors might recommend 81 mg aspirin, vitamins and other supplements for folks of my age, currently, I take none.

Another way to view this data is the results of ventilation stress tests. Here you can these results over two periods. Some key figures are: VO2 max. > 2500 ml/ min, with those values being 150 to nearly 200% of the predicted levels for someone age 68 and 74 respectively. Also note the absolute VO2 values have only very slightly decreased over 6 years. A second data point is the heart recovery rate. It's not how quickly your heart rate goes up, it's how quickly it comes down that is a measure of cardiovascular health. In the data you can see the 1-minute cool down after maximum stress resulted in a decrease of 42 beats per minute (bpm). This too did not change over 6 years.

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| ***Stress Test Results:*** | 3 | **2006** | **2012** |
|---|---|---|---|
| *Time (min)* | 12 | 13.2 | 12.3 |
| *Est. METS* | | 13.2 | 12.3 |
| *Peak VO2 (ml/min)* | | 2543 | 2589 |
| *Peak VO2 (% Predicted)* | | 156% | 192% |
| *Peak Ventilation (L/min)* | | 73.40% | 73.6 |
| *Breathing Reserve (%)* | | 42% | 36% |
| *VE/ CO2 nadir* | | 27 | 28 |
| *Anaerobic Threshold (ml/min)* | | 1796 | 1754 |
| *% of Peak VO2* | | 71% | 67% |
| *Max Heart Rate (BPM)* | 139 | 153 | 148 |
| *1 Min. Cool Down (BPM)* | | -42 | -42 |

The value of exercise according to a recent article on the subject. Strong evidence:

1. Lower risk of coronary disease.
2. Lower risk of stroke.
3. Lower risk of high blood pressure.
4. Lower bad and higher good cholesterol.
5. Lower risk of Type 2 diabetes.
6. Lower risk of colon cancer.
7. Lower risk of breast cancer.
8. Prevention of falls.
9. Improved lung respiratory and muscle fitness.
10. Reduced depression.
11. Proper weight

Moderate to strong evidence:

1. Better functional health.
2. Reduced abdominal obesity.
3. Eye health, especially age related.

Moderate evidence:

1. Lower risk of hip fracture.
2. Lower risk of lung cancer.
3. Improved bone density.
4. Improved sleep quality.

**How's that for a list of things we'd all like to have going for us?**

### 1.2.3 Why are older runners more susceptible to injuries?

Basically, as we age, muscles that are not used will atrophy becoming smaller and weaker over time. Just look at a sedentary old person's arms or legs. What's obvious is the skin flab. Those muscles or lack thereof are atrophied. Now if we reactivate muscles in one group, say from running, and that's all we reactivate, the non running muscles are still atrophied and this makes the imbalance worse.

This helps explain why a blend of exercises such as running, cycling, swimming, strength and flexibility training is the best of all worlds. If you're just a runner (as I am) then you must add specific strength and flexibility training to keep all your active muscle groups in balance. Otherwise, expect to get injured.

### 1.2.4 How late in life can I start?

Basically, as we age, muscles that are not used will atrophy, becoming smaller and weaker over time. Just look at a sedentary old person's arms or legs. What's obvious is the skin flab. Those muscles or lack thereof are atrophied. Now if we reactivate muscles in one group, say from running, and that's all we reactivate, the non-running muscles are still atrophied, and this makes the imbalance worse.

Of course, weight is an issue. It will take time to control weight by exercise. Again, from my experience if one runs at 130 to 140 bpm heart rate for 1 hour per day on most days, it will take 3 to 4 months to see progress in weight loss and maybe 1 year or more to begin to reach a really fit level of weight. Losing weight by vigorous exercise is not the easy way. It is the right way.

**Some other points:**

Forget the marathon if you're over 60 years old. It's too far, too long, too exhausting and the recovery is too much. If racing happens to one of your goals, begin at 5 km (3.1 miles) and gradually increase the race distance to whatever can be run in 2 hours or less.

Don't race too much. Two or three target races per year, with a few added buildup races, are enough. Training long and slow builds up. Racing breaks down.

How much can I run? My goal (at age 75) is about 300 days per year and about 1 hour per day in which I can cover around 7 miles. I remember talking with Lloyd Young one of the best all-time senior runners in Minnesota. I asked him how many miles could he run per year (at age 85)? His answer was 2000 miles. To which he added, with a smile on his face "I just passed 1000 this week". (It was early July).

Finally, all our muscles and tendons which attach our muscles to the bone structure become less flexible over time and are at more risk of being damaged by overuse.

## 1.3 AGE GRADED:

This section is only important to those who worry about becoming slower. Results from a recent 10 mile/ 16 km race with about 300 participants are shown below. The top ten finishers by age grading are shown on the left column (M 63 means male 63 years old, etc) and their actual recorded finish in the right column. You can see the nice mix of age results for men and women of different age groups.

| AGE GRADED PLACE | PARTICIPANT | ACTUAL RECORDED PLACE |
|---|---|---|
| 1ST | M 63 | 6 |
| 2 | F 55 | 22 |
| 3 | M 74 | 54 |
| 4 | M 59 | 125 |
| 5 | F 22 | 3 |
| 6 | M 70 | 38 |
| 7 | M 55 | 10 |
| 8 | F 50 | 20 |
| 9 | M 72 | 58 |
| 10 | F 30 | 9 |

Another way to show the value of age graded results is below. Here you can see how total time and the pace per mile go up with age, but the results are exactly the same using age graded adjustments. Each of the times shown here are equivalent to a 30 year old male running 55:30 or about 5 ½ minutes per mile which, by the way, is pretty darn good. For sure, in age adjusted terms you can be younger next year.

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**Change in Race Time and Pace @ constant 80% Age Graded**

| AGE | TIME 10 MILES/ 16 KM | PACE PER MILE |
|---|---|---|
| **60** | 1:08:45 | 6:50 |
| **65** | 1:12:31 | 7:15 |
| **70** | 1:15:42 | 7:30 |
| **75** | 1:21:07 | 8:06 |
| **80** | 1:29:44 | 9:00 |
| **85** | 1:43:32 | 10:00 |
| **90** | 2:07:04 | 12:40 |

**Social benefits:**

Finally, a few words about the social benefits of running late in life.

As I said before, I'm an old man well within that age 60 to 90 range. I spend most of my time with other old people whose productive lives are mostly behind them. They think, talk and act pretty much the same.

When I'm with other runners mostly they represent the present and future. Nearly all are balancing family, careers, yet giving their health a high priority. All are motivated, high energy, goal oriented people. How refreshing and stimulating it is!

Runners come in every skin color, every size and all shapes. They cover ages from very young to very old and everywhere in between. They represent the entire economic spectrum. Yet each one knows the value and rewards of hard work. Oh yes, how refreshing and stimulating it is!

Finally, there are many books and articles on the benefits of exercise. One that is mostly about the values late in life, is fun to read and makes all the key.