



Runners! Workshop

How To Become Your Fastest And Strongest Runner –
From Beginner, To 5K, To Ultra Marathons

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Why Do YOU Run?

- Recreation? To lose weight? To maintain fitness? Meditation?



- Competition? Want to run faster on a certain distance – 5K, 10K, Half Marathon, Marathon or Ultra Marathon?

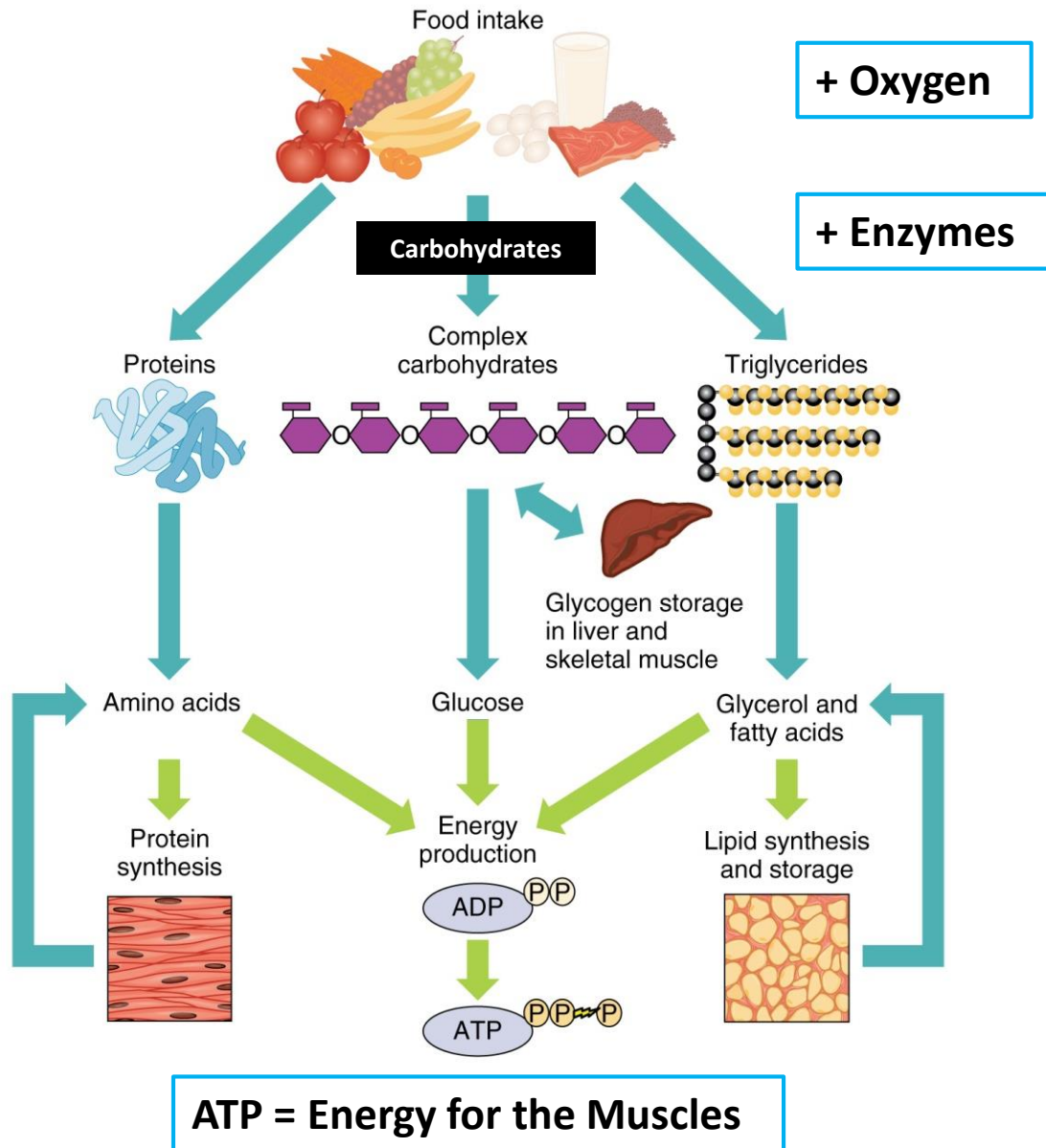


How To Train To Become YOUR Fastest And Strongest Runner?

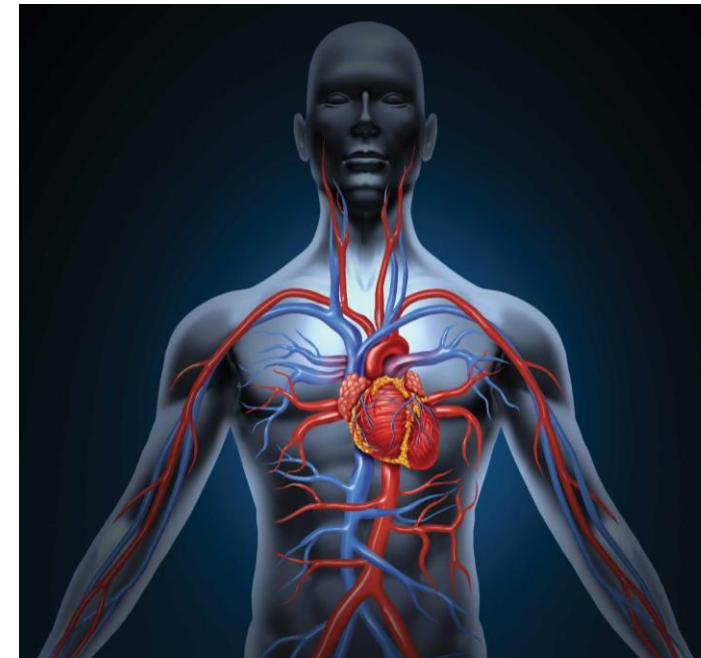


What happens when we run? We do we fatigue?

How Do We Produce Energy For Running?

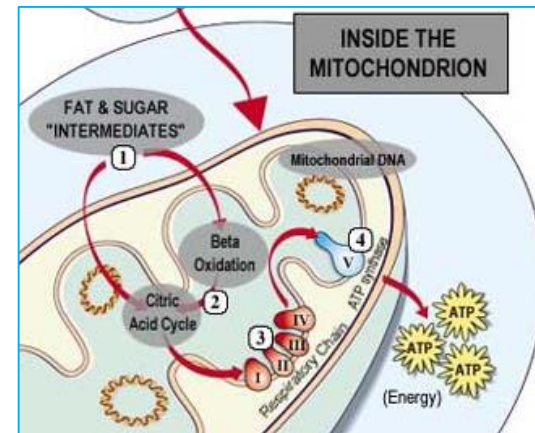


Cardiovascular System

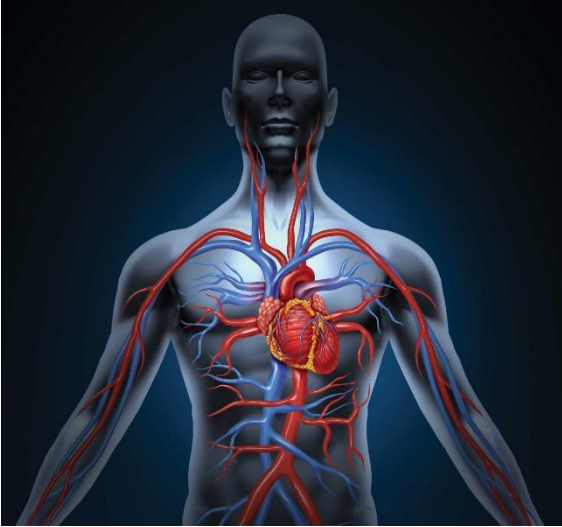


With Training we get:

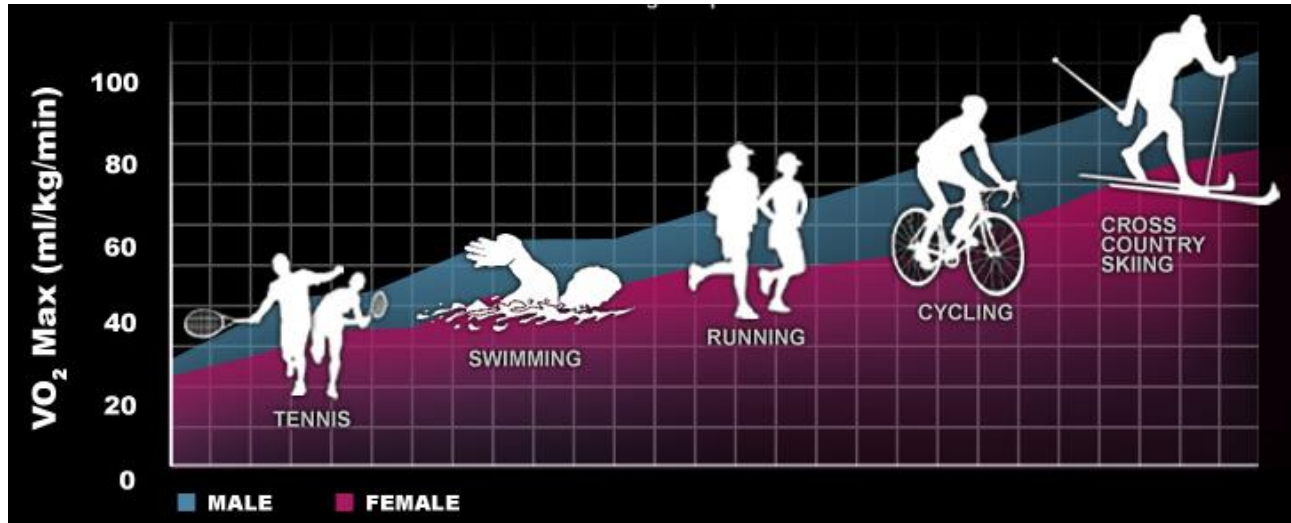
- Stronger hearts
- Stronger lungs
- More blood vessels
- More mitochondria
- Better at burning fat to fuel running



With Training We Become Better To Transport **Oxygen** To Our Muscles



The more **muscle** we engage
the more **oxygen** we require
to produce energy to maintain
running speed



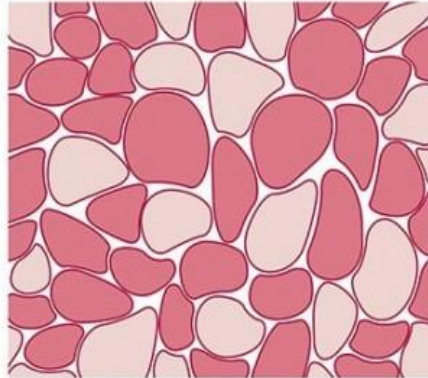
Every human body has:

- 650 muscles



When We Run At Different **Paces** We Use Different **Muscle Types** & Different **Energy Sources**

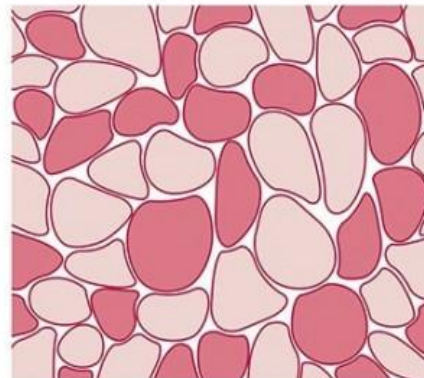
Slow-Twitch
Fat + Oxygen



5, 10, 21.1, 42.2 Km



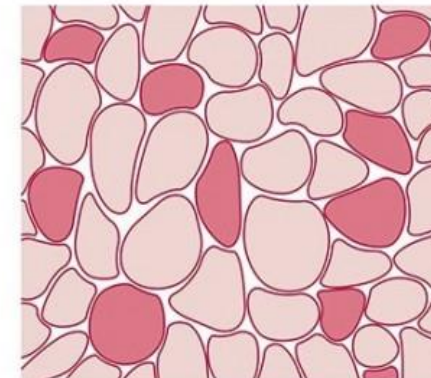
Intermediate
Glucose + Oxygen



800, 1500 m



Fast-Twitch
Glucose - Oxygen



100, 200 m



How To Train? Running Workouts

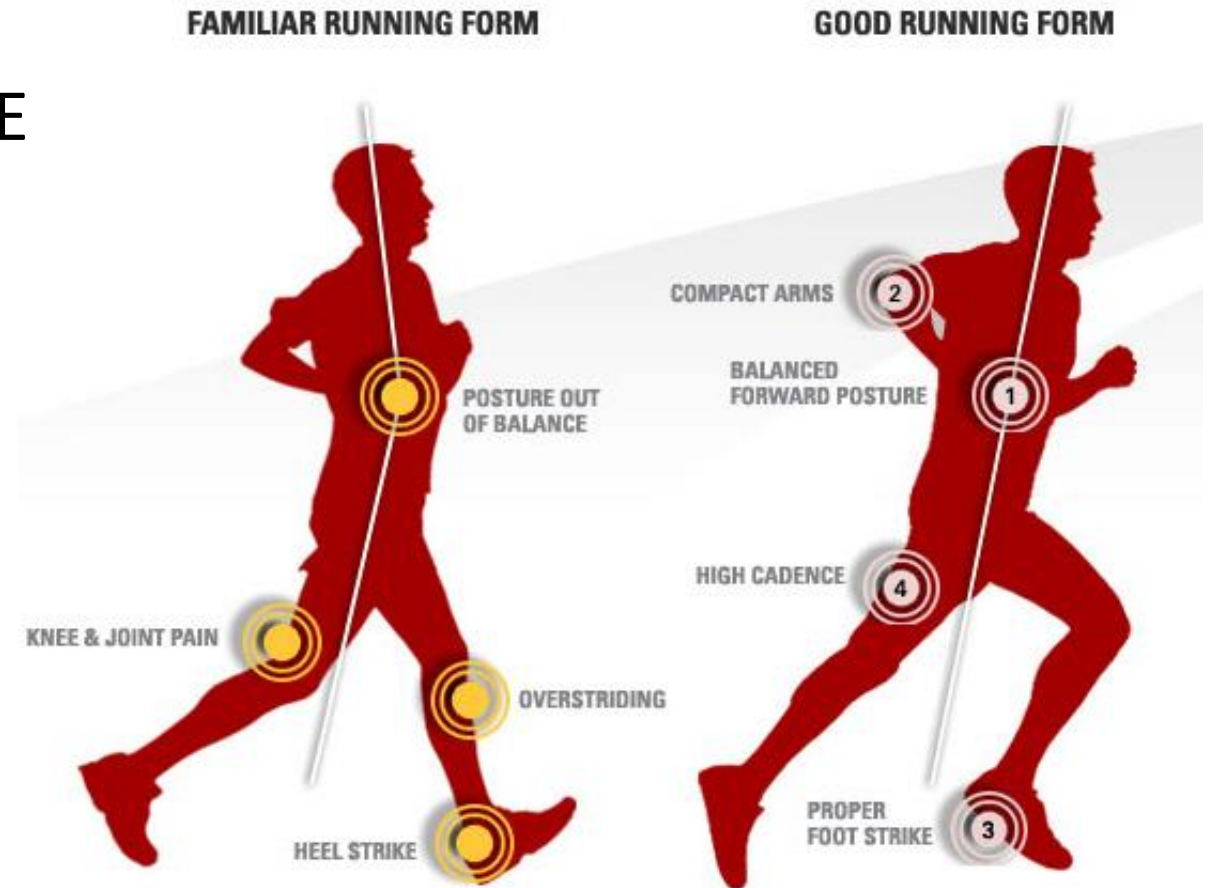
- To target all our different muscle types we need to run at different paces.
 - **Slow-Twitch:** Walk, Jog, Easy Run, Distance Run
 - **Intermediate:** Distance Run, Intervals, Hill Running, Strides 5-20 sec @ 5000 m pace
 - **Fast-Twitch:** Flat Sprints, Hill Strides 10-20 sec @ 1500 m pace
- Faster running will teach us to run with better efficiency and with better technique.
- Most of our running should be done at conversational speed. Why?
 - At this speed we can breath in enough oxygen to fuel running from fat-burning.
 - With easy to comfortable running maintained for 30 – 120 minutes we increase our fat-burning capacity and improve our oxygen- and fuel transport to the working muscles.

Pace Table for Different Running Workouts

5 K Time	Distance Run : Pace per Km > 20 – 70 minutes	Long Run : Pace per Km > 60 - 120 minutes	Easy Run : Pace per Km > 20 – 40 minutes
Improvements	Slow-Twitch Intermediate	Slow-Twitch Oxygen Transport	Slow-Twitch Oxygen Transport Recovery
15:00	3:58 – 4:17	4:16 – 4:57	4:33 – 5:20
20:00	5:09 – 5:53	5:31 – 6:22	5:53 – 6:51
25:00	6:18 – 7:09	6:44 – 7:43	7:09 – 8:17
30:00	7:24 – 8:23	7:54 – 9:00	8:23 – 9:38
35:00	8:29 – 9:33	9:01 – 10:15	9:33 – 10:56

Technique – Proper Running Form?

1. BALANCED FORWARD POSTURE
2. COMPACT ARMS
3. PROPER FOOT STRIKE
4. HIGH CADENCE

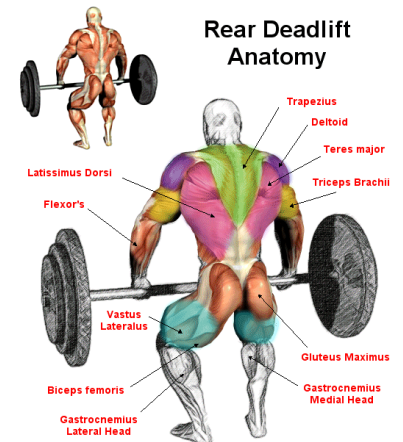


Strength-Training For Runners

Important for a balanced body.

To prevent injury but also to improve running form.

- Body-Weight Exercises: 10-12 reps * 3-4 sets
 - Focus on upper body
 - Focus on movements that works left and right side in parallel
- Weights in Gym: 3-10 reps * 3-5 sets
 - Try to challenge yourself with the weights and decrease the number of reps to really increase your strength!
 - Will improve your running form and your stride length!



Maria's Advice: How Do You Become A Better Runner?

Be nice to yourself! Sustainability!

It takes time for the body to adapt.

Even though I am not running particularly faster on my intervals right now compared to for one year ago, I recover better and it is less painful. That means that my body better adapts to the training and I avoid injury and infections.

Stick to the training program! With time you will be a faster runner!

