the need for speed

Use it or loose it. Staying quick and agile as you age is easier than you think.

BY JESSICA RIDENOUR

It's probably been a few

years since you've run breathless around the playground, engrossed in a game of tag, dodgeball, or anything that involves quick stops and starts, multifarious abrupt movements, and sudden bursts of speed. For most of us, as we get older we stop calling on those once-agile muscle groups to respond—unless we are in emergency situations, like outbiking a loose pit bull or jumping out of the way of an oncoming car. As with any muscular ability, you have to use it or you lose it.

why speed matters

"With age the body can easily lose muscle mass, experience a decrease in efficient oxygen intake, and lose agility and muscle responsiveness," says Paul Katami, a Los Angeles–based fitness instructor and personal trainer. This makes it all the more important to keep working the muscles that enable us to get up and go.

the gene pool rules

Serious speedsters count on fast-twitch muscle fibers for explosive, powerful movements. These fibers fire rapidly and burn energy quickly, giving you that extra boost whether you're running, swimming, climbing, or cycling. Their counterparts, slow-twitch muscle fibers, use energy gradually to keep you going for the long haul. Your muscles contain both types of fibers, but one tends to dominate the other, determining whether speed or endurance is your strong suit. Muscle fiber ratios are genetically determined and are different for everyone.

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expert optimism

The other aspect of speed is training—especially good for those of us who haven't hit the genetic lottery of muscle structure. "You're naturally born with a certain level of speed," says Beverly Kearney, head track and field coach at the University of Texas at Austin. "Then it's a matter of whether or not you can maximize your God-given abilities."

But don't be discouraged if you don't fit into the fast-twitch muscle mold. "Everyone can improve their speed," says Jack Hoyt, head track and field coach at Seattle Pacific University.

olympic inspiration

When you consider how Olympic-record times have improved over the past several decades, it seems that athletes continue to get faster. For example, in 1928, 16-year-old Elizabeth Robinson snagged Olympic gold with a time of 12:20 seconds in the first-ever women's 100-meter dash. Sixty years later, in 1988, Florence Griffith Joyner bolted across the finish line to capture the current female Olympic world record of 10:62. So why have we gotten faster? Possibilities include better nutrition, sophisticated equipment, and experienced trainers; or perhaps humans are simply evolving to be stronger and faster. Theories abound, but it's difficult to pinpoint a singular reason. It's likely a combination of all these things.

Even if you're not a brawny Olympian, with proper conditioning you can still crank up the velocity and keep yourself quick and agile whatever your sport and age. ✳

Schedule one day per week to work on your inner speed demon. Here are a few tips to get you started:

1. Focus on good form.
During sprints, rise up onto the balls of your feet and drive your legs by pumping your arms.

- Try to lift your knees high and keep your hands relaxed, rather than clenching your fists.
- Keep your arms and elbows close to your side instead of swinging them across your body.

2. Resistance-train to improve acceleration and explosiveness.
It enables you to put greater force into your movements.

3. If you're a runner, cyclist, climber, or paddle sports enthusiast, try joining a local basketball, soccer, or tennis team.
The stop-and-start, quick-speed agility necessary for those sports will make you stronger on the road, bike, rock, and water.

4. Start slowly and build up.
Always warm up with a five- or 10-minute jog before trying to make the Olympics. Start with 10-meter sprints, then work up to 30 meters, 60 meters, and so on.

5. Pump some iron.
Strength equals power.

6. Try actively running downhill.
Using gravity to increase your speed allows your muscles to know what fifth gear feels like. Muscles have memory.

7. Don't forget the basics:

- Breathe
- Stay hydrated
- Stretch before and after to prevent injury

8. Keep it real.
Although proper mechanics are important, Coach Kearney says, "You always want to keep 'you' in what you do. Don't overcoach it."

SPEEDS (IN MILES PER HOUR)