

Why Fins?

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Fins in swimming training have a number of benefits, especially for newer swimmers and triathletes. Fins come in many different styles. There are long fins, short fins, stiff fins, flexible fins, fins with a foot pocket, and fins with an ankle strap. While a minority of swim propulsion comes from the legs, using fins in training helps with body position, speed, and flexibility. These can all have long term benefits after the fins are removed as the body learns how to move through the water more efficiently and quickly with less effort.

Fins help improve body position in a number of ways. For the newer swimmer, they help to provide a little bit of extra power with the legs that often adds to greater security in the water, creating a flatter body line in the water with less frontal resistance. For those with a kick that goes outside the “tube” defined by the body, the fins help to reinforce an efficient kicking motion and reduce leg-created drag. As well, fins can help those with a kick that emphasizes too much hip or knee bend to have a longer, more fluid, whiplike motion.

Speed is an obvious advantage for using fins while swimming. While only about 10% of the power in freestyle swimming comes from the legs, the use of fins can dramatically increase the proportion. Beyond reduced drag and improved body position, the increased surface area the fin provides is an obvious benefit. One additional way speed is increased, related to body position, is elongation of the body line. Just like canoes and airplanes are very efficient because they are streamlined in front and especially in the back (take a look at the tail section of the B-52 fuselage, most cetaceans, and the fanciest sprint bike helmets), using fins extends the line of the body to increase speed.

Another important advantage for triathletes of using fins is enhancing ankle flexibility. This has a tremendous impact on the ability to kick. It is possible to kick feet-first (backwards from the intended direction) if the toes are pointed straight to the bottom and the ankles at 90 degrees. This is not a desirable state of affairs. A lot of people who have a history of running and biking have ankles that like to stay at around 90 degrees. This slows down the body like a parachute. Using fins is one way to improve the flexibility by encouraging the ankle to point toes to the back. Be careful, though, to not try to force the ankle into flexibility before it is ready. Try to work it gradually and take a break if there is a lot of discomfort. However, be sure to keep working on this to reap rewards over time.

Not all fins are created for every situation. Be careful about the kind of fins that you get to ensure they are appropriate for what you are trying to accomplish and will not create or aggravate an injury. It is particularly important to get a fin with the appropriate amount of flexibility. Commonly available fins marketed for scuba diving and snorkeling typically have a very stiff blade that are meant for slow speed and can be very hard on the ankles at higher intensities. We often use fins in our workouts as a teaching tool and motivational tool – we even use them to handicap races! Because of the need to try different things, we will let folks borrow different fins to see what works best for them.