



NATIONAL AQUARIUM IN BALTIMORE.

Conservation Education Department
Pier 3, 501 East Pratt Street
Baltimore, MD 21202

Fast Facts

- ❑ The largest great white shark found was 21 feet long.
- ❑ Great white shark pups are born alive and ready to hunt.
- ❑ Scientists estimate their population has dwindled by 80%.

Key Terms

Cartilage - The hard tissue that a shark's skeleton is made of.

Ovoviviparous - Pregnant females hold eggs inside their bodies until the pups are born alive and fully formed.

Ask the Aquarium

Fact Sheets from the
Conservation Education Department

Great White Shark

The white shark, *Carcharodon carcharias*, also known as the great white, is probably the most famous of all the sharks. It belongs to a family of fast-swimming sharks called mackerel sharks and is the largest carnivorous, or meat-eating fish, on earth today. The largest white shark on record, found off the coast of Cuba, was 6.4 meters (21 feet) long and weighed 3312 kilograms (7302 pounds). The white shark's ancestors, now extinct, were three times its size, with teeth that were 16 centimeters (6 inches) long!

Shark Teeth

Named for their distinctive white undersides and large size, great white sharks can also be identified by the shape of their teeth, if you care to venture that close! Narrow teeth lie in the front of the bottom jaw and are used to grab and hold prey. Serrated triangle-shaped teeth are found in the top row and are used to cut prey; the rough edges help these teeth cut more easily. Behind this front row of teeth lie numerous other rows, with each tooth ready to pop into place when the one in front of it is lost. After grabbing a whole fish or part of a larger animal with their teeth, the shark carries the prey deep underwater until it bleeds to death and then swallows it whole. Because they can swim at high speeds, white sharks are able to feed on fast-moving prey like tuna, seals, sea lions, whales, bony fish, and even other sharks. Great whites are also characterized by a pointed snout and a conical head.



Scientists estimate great white shark populations have declined 80% due to overfishing.

No Bones About It

Belonging to the group of cartilaginous fish, white sharks have no true bones. Instead they are supported by hard tissue called cartilage, which is the same material that gives shape to the human ear and nose. The white shark's eye structure is well suited for daytime vision.

White sharks are ovoviviparous, which means that they hold eggs inside of their bodies until the young are ready to hatch. The babies, or pups, are born alive, fully formed and ready to hunt for food. White shark pups are born with a full set of teeth and may be 1.4 meters (4.5 feet) long at birth. A white shark can have up to seven or eight pups each weighing 50 to 60 pounds.

A wide-ranging shark, the white shark makes its home in both the Atlantic and Pacific oceans, from the tropics to the polar regions. This shark is usually found in deeper water over the continental shelf,

a flat part of a submerged continent that drops off to the ocean floor. However, a white shark will occasionally wander into shallow water quite close to shore to find food.

People and Great White Sharks

People consider the white shark to be one of the most dangerous sharks because of its large size, aggressive behavior, and habit of swimming into shallow water. Bathers and divers have been attacked by this shark perhaps because sharks mistake humans for other prey. For example, surfers resting on their boards might look like a seal from a shark's perspective below. However, the white shark is neither as mean or as common as the movie *Jaws* would have you believe. Some divers have even reported it as a shy creature that swims away when approached.

Recent research has also shown that the white shark often rejects humans as a suitable food source. White sharks have a preference for fatty, energy rich food, and can assess the energy value of a potential meal in one bite. Humans bitten once by a white shark are just spat out; a skinny human doesn't compare to a blubbery elephant seal. Even so, the white shark is a fish to be respected and avoided!

Shark Conservation

The number of white sharks has dwindled in recent years; conservation of this animal has become a new concern. Scientists estimate that their worldwide populations have declined by 80 percent.

California, South Africa, and Australia have passed laws in order to help protect these fascinating creatures from life-threatening encounters with misplaced nets and

thoughtless trophy hunters. However, in places where sharks are not protected, they continue to get caught in fisherman's lines and are still hunted for their fins. Hopefully, more nations will join in to protect the great white shark in order for scientists to continue studying their unique behaviors.

Sharks at the National Aquarium in Baltimore

You can come nose-to-nose with large sharks - if you dare! Sand tiger and nurse sharks encircle visitors in the 225,000 gallon Open Ocean exhibit.

For more information about sharks at the Aquarium check out www.aqua.org/animals.html