

# HOW TO FEND OFF A SHARK

## 1 Hit back.

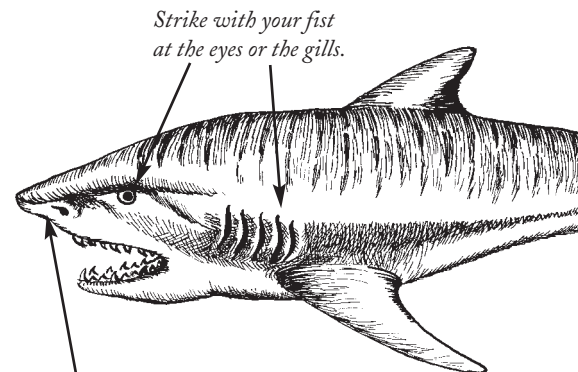
If a shark is coming toward you or attacks you, use anything you have in your possession—a camera, probe, harpoon gun, your fist—to hit the shark's eyes or gills, which are the areas most sensitive to pain.

## 2 Make quick, sharp, repeated jabs in these areas.

Sharks are predators and will usually only follow through on an attack if they have the advantage, so making the shark unsure of its advantage in any way possible will increase your chances of survival. Contrary to popular opinion, the shark's nose is not the area to attack, unless you cannot reach the eyes or gills. Hitting the shark simply tells it that you are not defenseless.

## HOW TO AVOID AN ATTACK

- Always stay in groups—sharks are more likely to attack an individual.
- Do not wander too far from shore. This isolates you and creates the additional danger of being too far from assistance.
- Avoid being in the water during darkness or twilight hours, when sharks are most active and have a competitive sensory advantage.



*The nose is NOT as sensitive as the above-mentioned areas, a common misconception.*

- Do not enter the water if you are bleeding from an open wound or if you are menstruating—a shark is drawn to blood and its olfactory ability is acute.
- Try not to wear shiny jewelry, because the reflected light resembles the sheen of fish scales.
- Avoid waters with known effluents or sewage and those being used by sport or commercial fishermen, especially if there are signs of bait fish or feeding activity. Diving seabirds are good indicators of such activity.
- Use extra caution when waters are murky and avoid showing any uneven tan lines or wearing brightly colored clothing—sharks see contrast particularly well.
- If a shark shows itself to you, it may be curious rather than predatory and will probably swim on

and leave you alone. If you are under the surface and lucky enough to see an attacking shark, then you do have a good chance of defending yourself if the shark is not too large.

- Scuba divers should avoid lying on the surface, where they may look like a piece of prey to a shark, and from where they cannot see a shark approaching.
- A shark attack is a potential danger for anyone who frequents marine waters, but it should be kept in perspective. Bees, wasps, and snakes are responsible for far more fatalities each year, and in the United States the annual risk of death from lightning is thirty times greater than from a shark attack.

### THREE KINDS OF SHARK ATTACKS

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**“HIT AND RUN” ATTACKS** are by far the most common. These typically occur in the surf zone, where swimmers and surfers are the targets. The victim seldom sees its attacker, and the shark does not return after inflicting a single bite or slash wound.

**“BUMP AND BITE” ATTACKS** are characterized by the shark initially circling and often bumping the victim prior to the actual attack. These types of attacks usually involve divers or swimmers in deeper waters, but also occur in nearshore shallows in some areas of the world.

**“SNEAK” ATTACKS** differ: the strike can occur without warning. With both “bump and bite” and “sneak” attacks, repeat attacks are common and multiple and sustained bites are the norm. Injuries incurred during this type of attack are usually quite severe, frequently resulting in death.

### Be Aware

Most shark attacks occur in nearshore waters, typically inshore of a sandbar or between sandbars where sharks feed and can become trapped at low tide. Areas with steep drop-offs are also likely attack sites. Sharks congregate in these areas, because their natural prey congregates there. Almost any large shark, roughly six feet or longer in total length, is a potential threat to humans. But three species in particular have repeatedly attacked man: the white shark (*Carcharodon carcharias*), the tiger shark (*Galeocerdo cuvieri*), and the bull shark (*Carcharhinus leucas*). All are cosmopolitan in distribution, reach large sizes, and consume large prey such as marine mammals, sea turtles, and fish as normal elements of their diets.