When force is applied to a confined fluid, an increase in pressure is transmitted equally to all parts of the fluid. This statement is known as Pascal's principle.

A force pump causes a fluid to move from one place to another by increasing pressure in a fluid. A tube of toothpaste can be considered to be a force pump. You increase the pressure on the fluid by squeezing the tube, and the fluid toothpaste is forced out the open end.

Hydraulic systems take advantage of Pascal's principle. A hydraulic system multiplies force by applying a force to a small surface area. The increase in pressure is then transmitted to another part of a confined fluid, which pushes on a larger surface area. In this way, the force is multiplied.

A common hydraulic device is the braking system of a car. The force exerted by a person on the brake pedal is multiplied, transmitted to the brake pads, then the car is stopped.

In nature, sea stars use a natural hydraulic device called the water-vascular system to move their tube feet.