

Cnidaria (e.g. Hydra) body form

Hydra and jellyfish are **multicellular** organisms that are **radially symmetrical**. This means they look identical when split at any point around a circle, looking downwards onto their body plan.

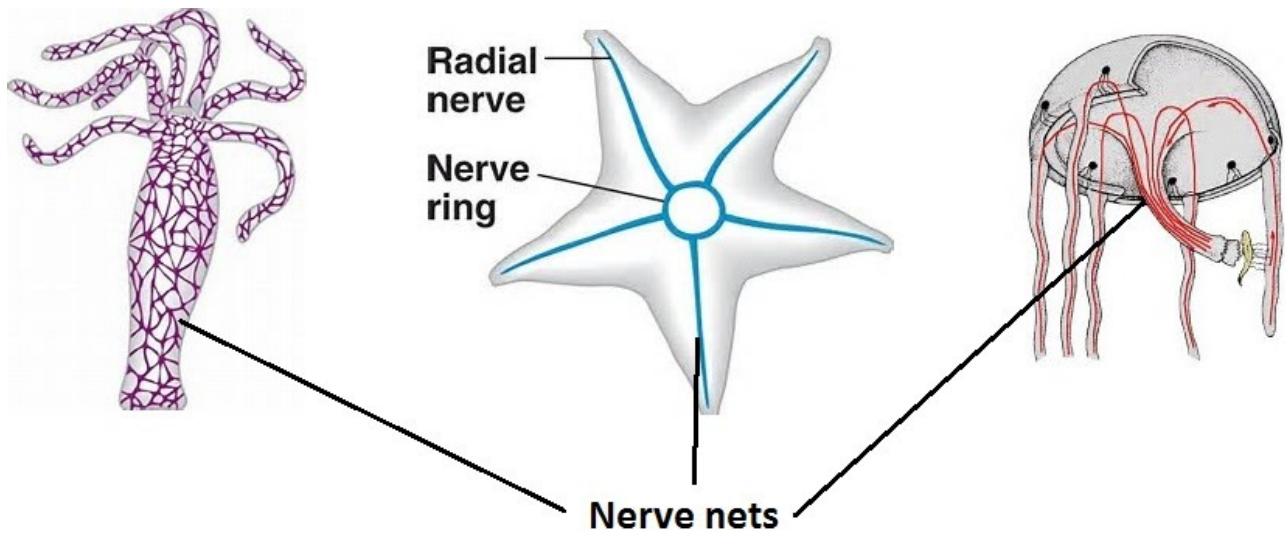


They have very basic nervous systems and digestion, and the **aqueous medium** they reside in supports their bodies.

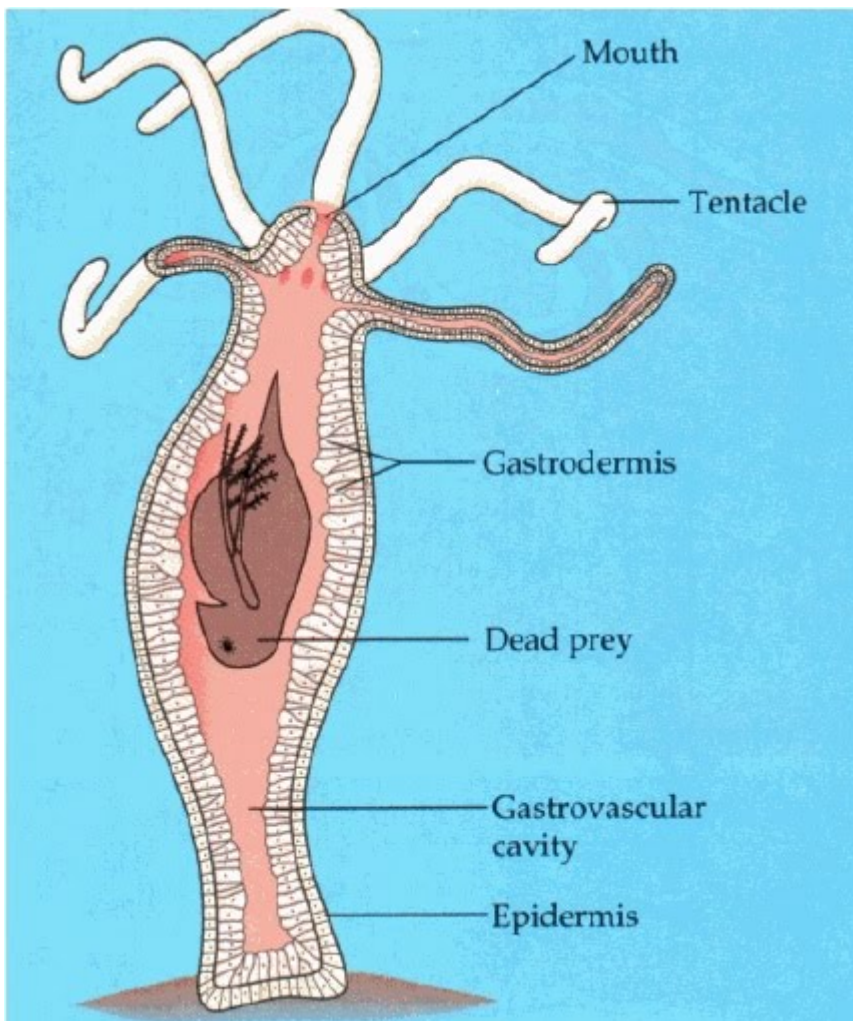
They don't have a centralised system with a brain or a spinal cord. Their neurones are simply spread across their body and interconnected, producing signals that are not traceable depending on the location of the stimulus.

This means that if there is food or danger on their left side, they wouldn't know, and instead respond overall. They move accordingly towards food or away from a negative stimulus, as a whole and without regard for the stimulus location.

The sea star, however, does have **nerve nets** in each arm, connected centrally by a ring, so it can have more specific responses compared to a full-body net such as that of hydra.



Hydra is an example of an organism with multicellular, simple digestion.



Its tentacles help it catch prey, such as *Daphnia*, which is then ingested via the mouth into its gastrovascular cavity. Cells in the gastrodermis secrete digestive enzymes such as

those that break down protein, and the prey gets digested inside *Hydra*. Waste products are eliminated (egested) through the same mouth.

The fluid in its gastrovascular cavity a.k.a. **enteron** creates a **hydrostatic skeleton** that also helps support its body.