

(iii) Fangs:

In poisonous snakes a few maxillary teeth are modified to act as poisonous teeth or fangs. The fangs are conical, curved, sharply pointed and are enlarged maxillary teeth which regenerate when lost. An intake aperture is at the basal part of the fangs and the discharge aperture is sub-terminal.

a) Proteroglypha (Proto = first, glyph = hollowed):

Fangs are small, relatively non-movable and situated at the front of the maxillary bone. An open groove runs on the anterior surface of the fang. Fangs of cobras, kraits, mambas (Fam. Elapidae) and sea snakes (Fam. Hydrophidae) are included in this category.

(b) Solenoglypha (Solen = Pipe):

Fangs are long, hollowed and situated at the rear end of the maxillary bone. They are capable of vertical movement and are movable in which the fangs are folded against the roof of the mouth when the jaws are closed. In this type, fangs are pierced by venom canals, thus acting as hypodermic syringe. The fangs of pit vipers and true vipers (Family Viperidae) fall in this category. The long movable fangs of true vipers can penetrate deep into the tissues of the victims.

(c) Opisthoglypha (Opistho = behind):

Fangs with open groove on the posterior surface, situated at the posterior extremity of the maxillary bone. The fangs are either one or two in number with few smaller teeth in front. The fangs of vine snake (*Ahaetulla nasutus*), common cat snake (*Boiga trigonata*), flying snake (*Chrysopelea ornata*), South African boomslang (*Dispholidus typus*), egg-eating snakes (*Dasypeltis*) are in this category. The bite of opisthoglyph snakes is not usually lethal to human beings except South African boomslang. Generally, their bite may be lethal to lizards, and sometimes birds, mice and rats.

Ligaments and Muscles of Snakes:

(i) The poison gland is held in position by ligaments, which extend from maxilla-lacrimal junction to pterygoquadrate.

(ii) Fan-shaped ligaments present along the sides of the poison gland.

(iii) Associated muscles are anterior and posterior temporalis, digastric muscles and protractor-ptyergoid muscle that help in biting mechanism.

(iv) The fan-shaped temporalis muscle originates from the post-frontal and parietal ridges. It embraces most part of the poison gland. Its sudden contraction helps to eject out the venom from the gland, and also controls the biting mechanism.

(v) Digastric muscle: It arises from the squamosal and quadrate junction and is attached to the articular of the lower jaw . Contraction of these muscles help in opening the mouth by depressing the lower jaw.

(vi) Sphenopterygoid or protractor-ptyergoid muscle: It arises from the anterior margin of the basal orbitosphenoid region and inserts to the dorsal side of the pterygoid . It assists in pulling the pterygoid forward, resulting in pushing the ectopterygoid which rotates the maxilla and erects the fang.

(vii) Anterior temporalis muscle: It is the closing muscle of the mouth. It arises from the pterygoid bones of the upper jaw and is inserted to the articular region of the mandible .