

## ACONITUM NAPELLUS

(Acon. np.)

**Botanical name :** *Aconitum napellus* Linn.

**Family:** Ranunculaceae

**Synonyms :** *Aconitum angustifolium* Bernh ex Reichb, *A. Coeruleum* Blocki, *A. dissectum* D. Don, *A. multifidum* Royle, *A. stoerckianum* Reichb, *A. tauricum* Wul, *A. vulgare* DC.

**Common names :** *Hindi:* Mitha zaher; *English:* Helmet flower; *French:* Aconit; *German:* Eisenhut, Sturmhat.

**Description :** A perennial herb, having perpendicular, tapering tuberous roots. The stem is upright, round, smooth, slightly hairy above and grows upto the height of 2 meter. The leaves are alternate long stalked, hairy on the under surface. They are palmately lobed, the lower more deeply than the upper into three or five segments, which are again divided. The flowers are of dark-violet colour and appear from May to July. They are stalked and racemose. Petaloid sepals five, the upper helmet shaped and beaked, nearly hemispherical, the two laterals are roundish and hairy internally; the lower two are oblong oval.

**Macroscopical :** The roots are tuberous and are either single or in clusters of two or more, the younger smoother root or roots being connected with the older deeply wrinkled roots by means of side branch or branches. Each root is obconical, usually from 4 to 10 cm and 1 to 3.5 cm wide at the crown to which is attached the base of an aerial stem or the remains of the bud with numerous thin, wiry rootlets, the scars left by these. Old roots are brown and the young roots are yellowish-white internally. The external surface is dark brown. Fracture short, horny or mealy.

**Microscopical :** Near the tip of the root, cross section show diarch radial bundles, gradually upwards these become successively tetrarch, pentarch and occasionally octarch. The root cortex consists of narrow region bounded externally by a metaderm of about 1 to 4 layers of brownish cells. Cortical cells are pitted cellulosic parenchyma. The endodermis consists of brownish, longitudinally elongated rectangular cells, enclosing a pericycle of about 1 to 20 layers of parenchyma cells. Sclereids are occasionally present in cortex and pericycle. Five to eight bundles of primary phloem alternating with the angles of cambium lies within the pericycle. The metaphloem is a broad band of parenchyma cells, densely packed with starch grains, both simple and compound, 2 - 6 to 15 - 20  $\mu$  in diameter. Numerous islets of sieve tissues are embedded in this region; cambium in the upper part of the root, stellate in transverse section, consists of rectangular prismatic cells, enclosing at each angle, a wedge shaped group of parenchymatous medullary ray cells on the inner margin of which is a small primary xylem, containing spiral vessels, the wedge flanked on either side by a small group of secondary xylem, consisting mainly of reticulate and pitted vessels; additional groups of secondary xylem are distributed along the cambium. The medullary rays are indistinct and the pith consists of cellulosic parenchyma.

**Habitat** : It is found in wet, shady places in mountainous regions at the high altitudes. It is found in Western Himalayas, in central, Southern Europe and Siberia. It is also found in mountainous ranges of Pacific coast of America.

**History and authority** : Allen's Encyclop. Mat. Med. Vol. I, 12. Hering's Guid. Symp. Vol. I, 28.

**Part used** : The whole plant. Moisture contents of fresh plant 350 ml per 100 g solids.

**Preparation** : (a) Mother Tincture  $\phi$  Drug strength 1/10  
Aconite Napellus in *coarse powder* 100 g  
Purified Water 350 ml  
Strong Alcohol 683 ml  
to make one thousand millilitres of the Mother Tincture.

(b) Potencies: 2x to contain one part tincture, two parts Purified Water and seven parts *Strong Alcohol*. 3x and higher with *Dispensing Alcohol*.

**Old method** : Class I and II