



## Stage 15

(6 to 8 weeks post fertilization)

**Lens Vesicle, Nasal Pit, Hand Plate; Trunk Widens, Future Cerebral Hemispheres Distinct**

### Head and Neck

As the brain has increased in size by one-third since the last stage, it is still larger than the trunk.

Rostral neuropore is closed and four pairs of pharyngeal arches are visible now, though the fourth one is still quite small. The maxillary and mandibular prominence of the first arch are clearly delineated. The stomodeum, the depression in the ectoderm which will develop into the mouth and oral cavity, appears between the prominent forebrain and the fused mandibular prominence. Swellings of the external ear begin to appear on both sides of the head, formed by the mandibular arch.

Lens pit has closed, retinal pigment may appear in the external layer of the optic cup and lens fibers form the lens body.

Two symmetrical and separate nasal pits may appear as depressions in the nasal disc.

### Thorax

Esophagus lengthens.

Blood flow through the atrioventricular canal is divided into left and right streams, which continue through the outflow tract and aortic sac. The left ventricle is larger than the right and has a thicker wall.

Lobar buds appear in the bronchial tree.

### Abdomen and Pelvic Regions

The intestine lengthens.

**Ureteric bud lengthens and its tip expands, thus beginning the formation of the final and permanent set of kidneys.**

## **Limbs**

**Distinct regions of the handplate, forearm, arm and shoulder may be discerned in the upper limb bud.**

**Lower limb bud begins to round at top and tip of its tapering end will eventually form the foot.**

**Innervation, the distribution of nerves, begins in the lower limb buds.**

## **Spine**

**The relative width of the trunk increases from the growth of the spinal ganglia, the muscular plate and the corresponding mesenchymal tissues.**