Atlanto-occipital joint

The **atlanto-occipital joint** is the articulation between the **atlas** (the first cervical vertebra, or C1) and the **occiput** (the back of the skull). This joint plays a crucial role in head movement, allowing for flexion and extension (nodding the head "yes"), as well as slight lateral movement.

Key features of the atlantooccipital joint

1. **Type of joint**: It is a synovial, ellipsoid (condyloid) joint, which means it allows for a range of motion in two planes—flexion/extension and some lateral tilting.

2. **Movement**: The joint allows the head to move forward and backward (flexion and extension), enabling nodding movements, as well as slight lateral flexion for side-to-side movement.

3. **Stability**: Ligaments, including the **anterior and posterior atlanto-occipital membranes**, provide stability to the joint. The joint is also supported by muscles that attach to the occiput and cervical vertebrae.

4. **Clinical significance**: Injury to the atlanto-occipital joint, such as through trauma or congenital issues, can affect head and neck movement and potentially damage the spinal cord due to the proximity to the brainstem.

The atlanto-occipital joint is a key part of the craniovertebral junction, where the skull meets the upper spine.

Atlanto-occipital joint (Articulatio atlantooccipitalis) The atlantooccipital joint (also known as the C0-C1 joint) is a paired symmetrical articulation between the cervical spine and the base of the skull. Along with the atlantoaxial joint, it makes up a group called the craniovertebral joints.

It allows for flexion and extension of the head, as well as some lateral and rotational movement.

The joint is held together by ligaments and surrounded by a synovial capsule, which contains synovial fluid that lubricates the joint and helps to reduce friction. The atlanto-occipital joint is also supported by muscles such as the suboccipital muscles, which help to stabilize the joint during movement.

The atlanto-occipital joint is an important anatomical structure as it allows for the movement of the head and neck, and any damage or instability in this region can lead to serious complications such as compression of the spinal cord or nerve damage.

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