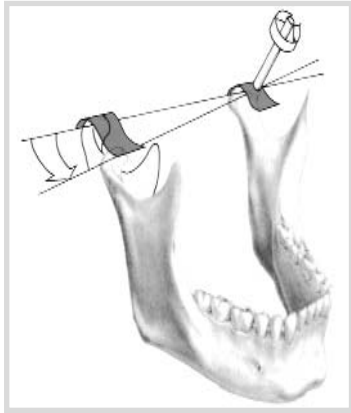


## Frontal Sagittal

The **mandible** is moved in a number of planes:

1. Up and down (*frontal plane*)
2. Side to side (*horizontal plane*)
3. Forwards and backwards (*sagittal plane*)



The vertical axis of rotation can be better visualized when one looks at a composite of rotation because lateral rotation actually occurs around the **lateral** pole of the rotating condyle. As rotation occurs, the orbiting condyle must travel down the slope of the eminence. The medial pole of the rotating side must also travel down its slope but for a lesser distance. Because the condyles load against inclines, a pure vertical rotation is not possible without being combined with a sagittal rotation of the working-side condyle.

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**Five factors** of mandibular movement:

1. **Initiating position** (*centric relation*)
  - Most stable and most easily reproduced position
2. **Types of motion**
  - Rotation
  - Translation
3. **Direction of motion** (*planes*)
  - Frontal
  - Sagittal
4. **Degree of movement**
5. **Clinical significance of movements**
  - Each patient may have different relationships