Bench Alignment

Lock the knee from the app.

1. **Reference Line:**
   Create a vertical Reference Line (A) using a plumb.

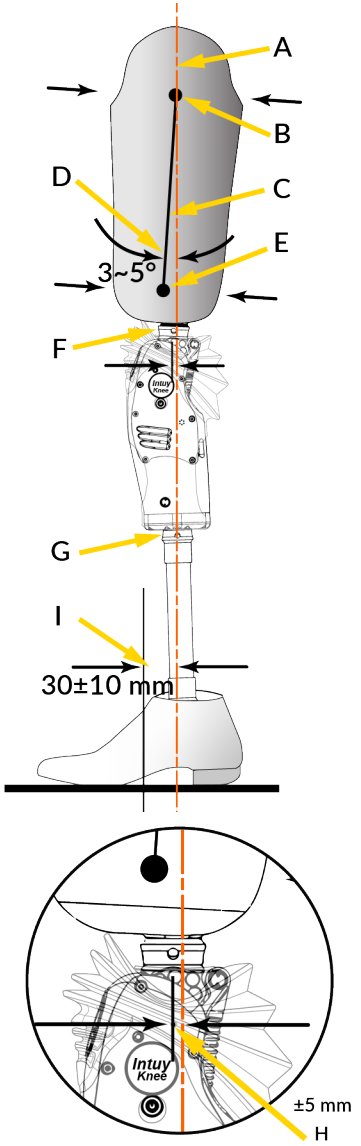
2. **Foot Placement:**
   Keep the shoe on. Keep Mid-foot approximately 30±10 mm anterior (I) to the Reference Line (A). Place the foot with a 5-7° toe-out angle.

3. **Knee Placement:**
   Place the knee with approximately 5° external rotation. Adjust the fore-aft set screws of the foot to move the Knee Axis (H) within ±5 mm w.r.t. the Reference Line (A).

4. **Mark the Socket:**
   Mark the Proximal Center (B), Distal Center (E), and the Socket Centerline (C).

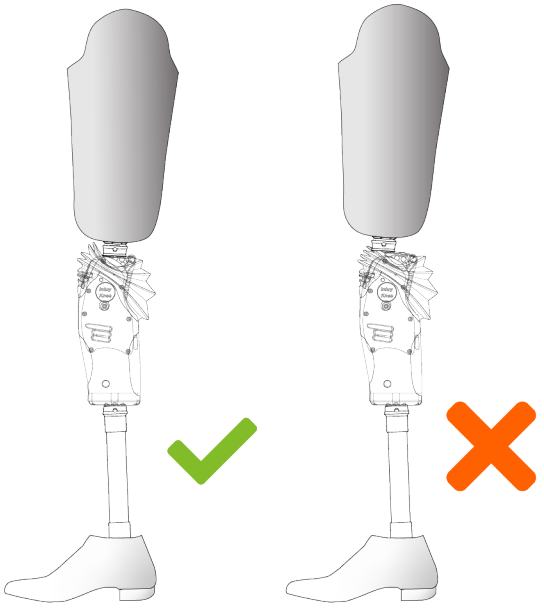
5. **Socket Alignment:**
   Let the Reference Line (A) pass the Proximal Center (B) and set the Socket Flexion Angle (D) to 3-5°. Take individual conditions into account, such as hip flexion contractures.

6. **Socket Connection:**
   Align and fixate the Socket Adapter (F) to the socket and connect the knee to the socket via the Socket Adapter (F).



Tips for alignment

Neutral & dynamic alignment is recommended.



Neutral & dynamic Overly-stable

Overly-stable alignment could decrease functionality.

It could potentially make it difficult to trigger stair ascent and descent, stand-to-sit, ramp descent and walk or trigger swing.

A. Reference line, **B.** Proximal Center, **C.** Socket Centerline, **D.** Socket Flexion Angle, **E.** Distal Center, **F.** Socket Adapter, **G.** Tube Adapter, **H.** Knee Axis, **I.**Distance between the reference line and mid-foot.

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Static Alignment

Lock the knee from the app.
Ask the patient to put on the prosthesis.

Without the 3D L.A.S.A.R. Posture tool

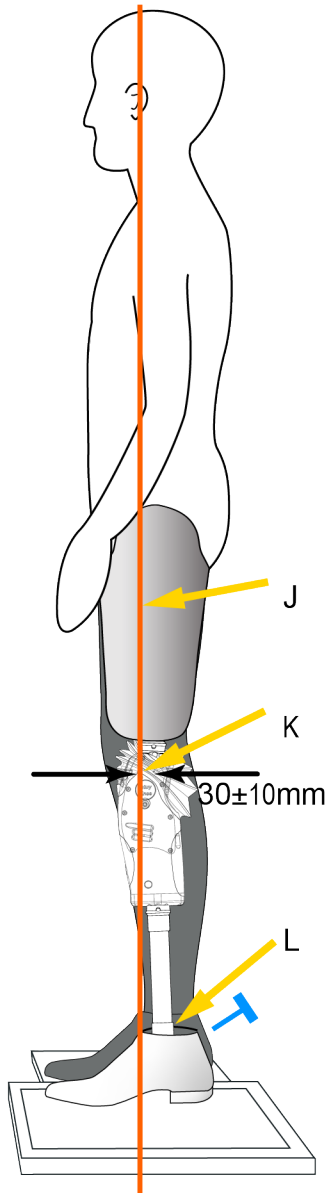
1. **Stand Straight**
   Ask the patient to stand straight and distribute weight evenly on both feet.

2. **Foot Adjustment**
   Adjust solely the plantar- and dorsiflexion of the foot so that the pressure on the front or rear side of the socket are even.

With the 3D L.A.S.A.R. Posture tool

1. **Load Line**
   Instruct the wearer to step onto the force plate of the 3D L.A.S.A.R. Posture tool with the prosthetic foot and place the other foot on a height compensation panel. Instruct the wearer to distribute weight evenly on both feet.
   The Load Line will be visible on the side.

2. **Foot Adjustment**
   Adjust only the plantar or dorsiflexion of the foot so that the Knee Axis mark is 30±10 mm posterior to the Load Line.



J. Loading Line, **K.** Distance between the Knee Axis and Loading Line, **L.** Adapter for the Foot.

Dynamic Alignment

Set the knee to **Start** mode.

1. **Sagittal Plane**
   Check stride symmetry and stance stability, adjust knee flexion or foot flexion when necessary.

2. **Frontal Plane**
   Observe the lateral motion and stability of trunk. Check pressure on medial-lateral side of the socket with the wearer. Adjust ab/adduction and position of the socket adapter when necessary. Adjust ankle inverse of eversion when necessary.

3. **Transversal Plane**
   Adjust knee rotation when excessive leg rotation is observed during swing. Adjust foot rotation when leg rotation is observed e.s.p. during stance.

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