

# Lengths and circumferences of the lower limb

We measure the length and circumference of the lower limb lying down with a tape measure. We measure both lower limbs, then the results are compared.

## Lower Extremity Lengths

| Lengths of the lower limb                             |                                |                     |
|---|--------------------------------|---------------------|
|   | proximal point                 | distal point        |
| <b>functional (relative) length of the lower limb</b> | spina iliaca anterior superior | malleolus medialis  |
| <b>anatomical length of the lower limb</b>            | trochanter major               | malleolus lateralis |
| <b>length of the lower limb with pelvic asymmetry</b> | umbilicus                      | malleolus medialis  |
| <b>thigh length</b>                                   | trochanter major               | cleft knee joint    |
| <b>leg length</b>                                     | cleft of the knee joint        | malleolus lateralis |
| <b>leg</b>  | heel                           | longest toe         |

## Examination of the length of the lower limbs according to Ludmila Mojžíšová

This simple examination belongs to the more indicative ones, when we need to compare the length of the lower limbs in a relatively short time, for example after operations total endoprosthesis of the hip joint and knee joints.

- The starting position is the patient lying on his stomach, toes over the couch.
- We monitor and compare:
  - heel plane;
  - line under malleolus lateralis;
  - line of knees.
- We then passively bend the patient's knees to 90° flexion by grasping the instep and then observe:
  - heel plane;
  - knee height;
  - length of lower leg (difference in heel height);
- femur length (the difference in the distance between the knee joints when viewed from the side).



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## Circumferences of the lower limb

| Circumferences of the lower limb |   |
|----------------------------------|---|
| measurement segment              | measurement location  |
| thigh                            | adults 10 cm above the patella, children 5 cm               |
| knee joint                       | in the middle of the patella                                |
| below the knee joint             | over tuberositas tibiae                                     |
| calf                             | in its strongest place (approx. 10 cm below the knee joint) |
| above the ankles                 | above the malleolus medialis et lateralis                   |
| instep, heel                     | over the heel and bends the ankle                           |
| MP joints                        | shoe measure  |

## Links

- Topographic Anatomy of Limbs/Structure of Limbs
- Upper Extremity Lengths and Circumferences

## References

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- GROSS, Jeffrey M – FETTO, Joseph. *Examination of the musculoskeletal system : translation of the second English edition*. 1. edition. Prague : Triton, 2005. ISBN 80-7254-720-8.