

# **KOSTI DOLNÍ KONČETINY**

*(ossa membri inferioris)*

# Kostra dolní končetiny

- **orgán opory, lokomoce, ochrany vnitřních orgánů**
- **robustnější kosti a silnější svaly než HK**
- **omezený rozsah pohyblivosti**
- **vertikalizace** postavy – **těžiště** u  $S_2$  (sklon pánve)
- **pánev tvoří s páteří funkční jednotku** (transmisní systém)
- **největší vývojové změny DK - na noze**

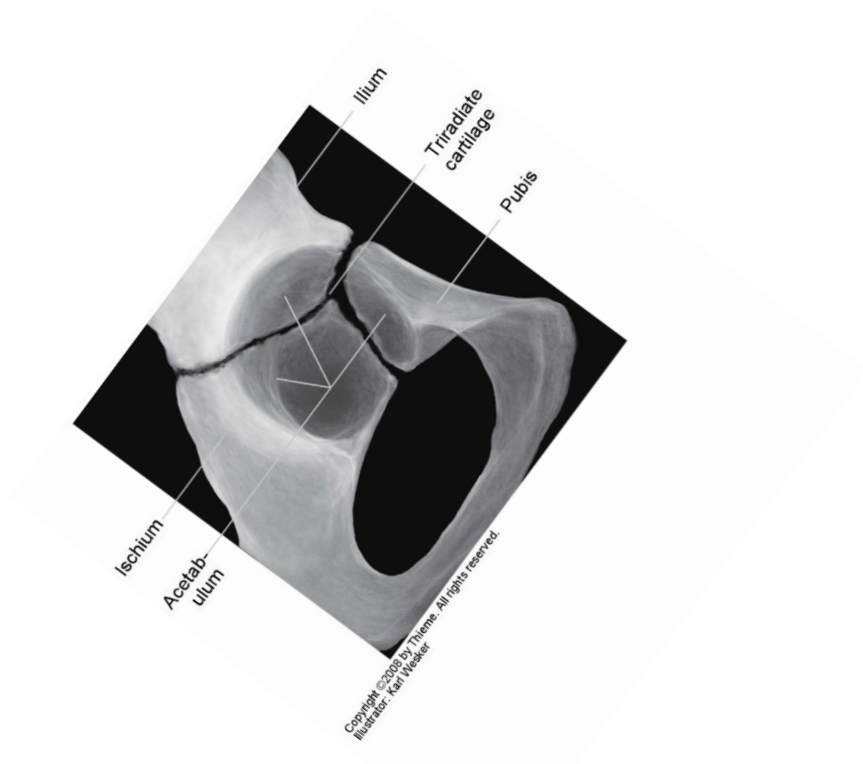


# Skelet pánevního pletence

*Cingulum membri inferioris*

Pánev tvoří s páteří funkční jednotku!

Kost pánevní – *os coxae*  
(*os ilium, os ischii, os pubis*)



# Skelet volné dolní končetiny

*Ossa membri inferioris liberi*

## Stehno

Stehenní kost – *femur*

Češka – *patella*

## Bérec

Holenní kost – *tibia*

Lýtková kost – *fibula*

## Kostra nohy

Zánártní kosti – *ossa tarsi*

Nártní kosti – *ossa metatarsi*

Kosti prstů nohy (*ossa digitorum pedis*  
– *phalanges*)

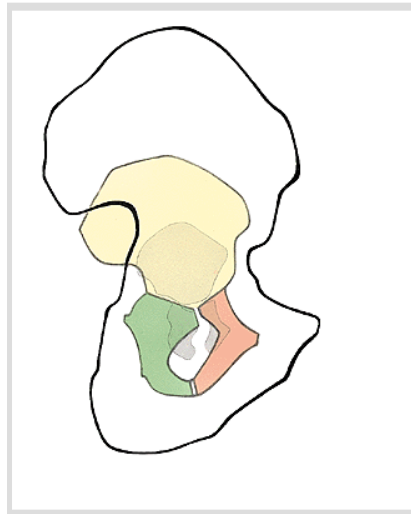
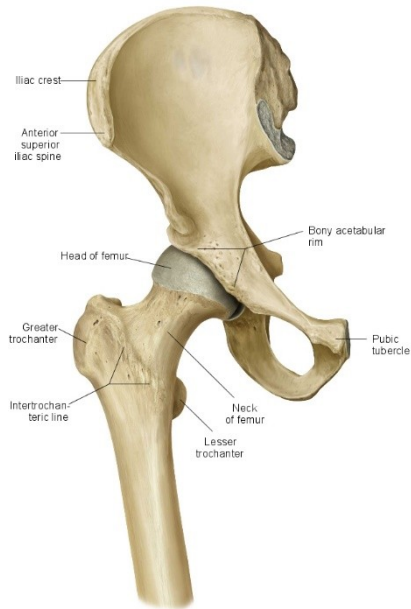


# Os coxae

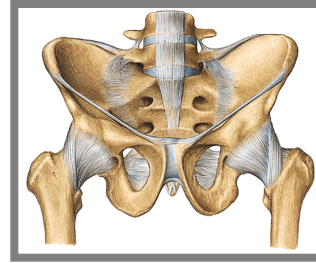
*(os ilium, os pubis, os ischii)*

acetabulum (*facies lunata, fossa acetabuli, incisura acetabuli*)

foramen obturatum



# Os ilium (kyčelní kost)



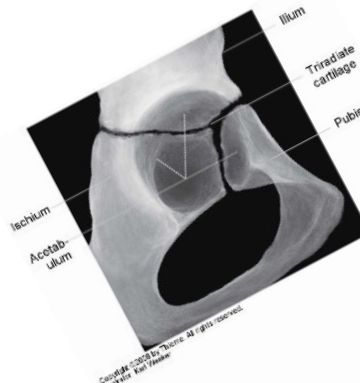
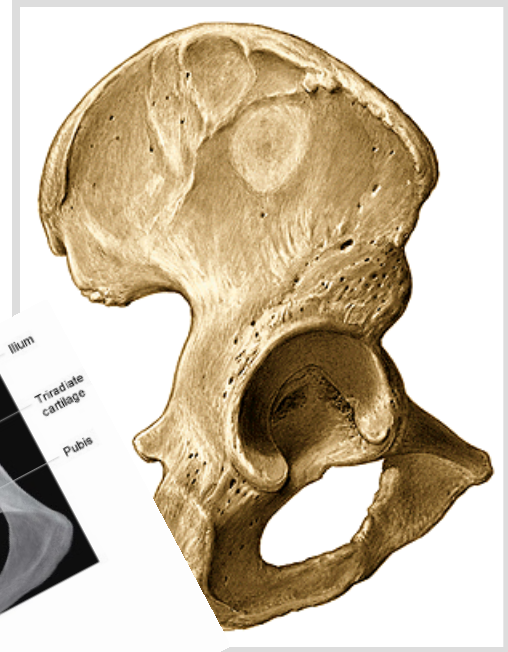
**corpus**

**ala** zevnitř (*fossa iliaca, facies auricularis, tuberositas iliaca, linea arcuata*)

**crista iliaca** (*labium externum, linea intermedia, labium internum*)

**spina iliaca** anterior superior et inferior,  
**spina iliaca** posterior superior et inferior

**lineae glutaee** (zevní strana lopaty kyčelní kosti) posterior,  
anterior et inferior





# Os ischii (sedací kost)

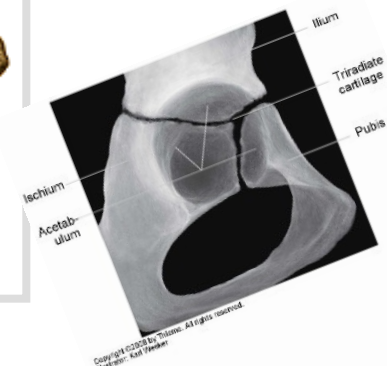
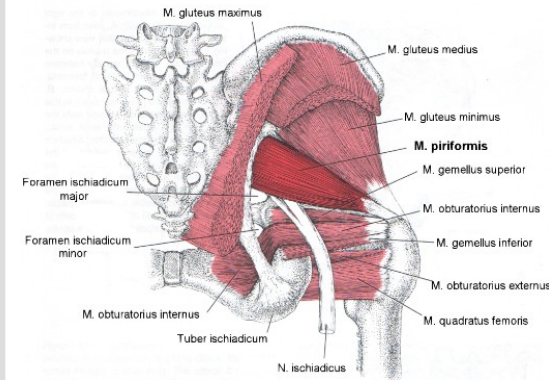
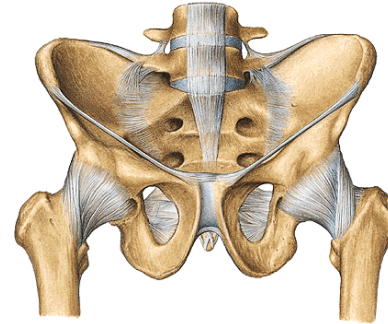
corpus

ramus ossis ischii

tuber ischiadicum

spina ischiadica

incisura ischiadica major et minor



# Os pubis (stydká kost)

corpus ossis pubis

**ramus superior** ossis pubis

eminentia iliopubica

pecten ossis pubis

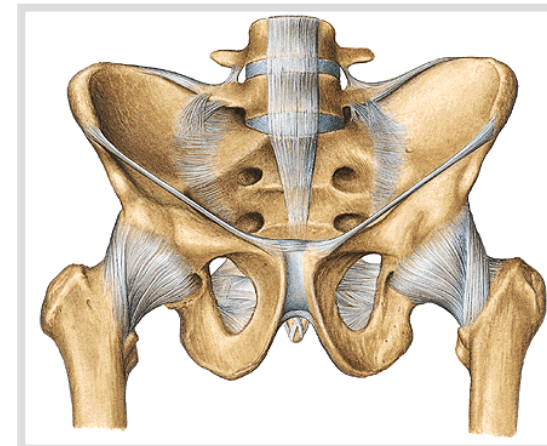
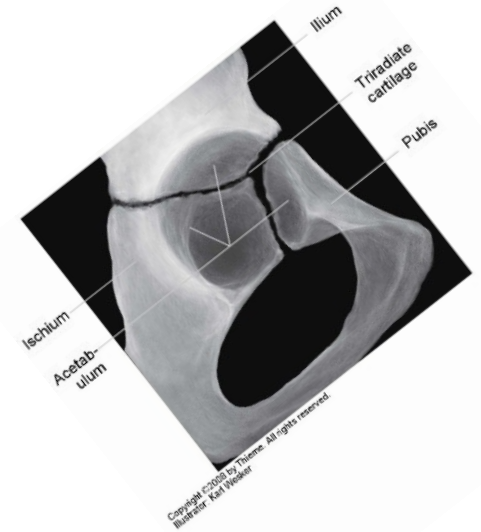
tuberculum pubicum

sulcus obturatorius

**ramus inferior** ossis pubis

facies symphysealis

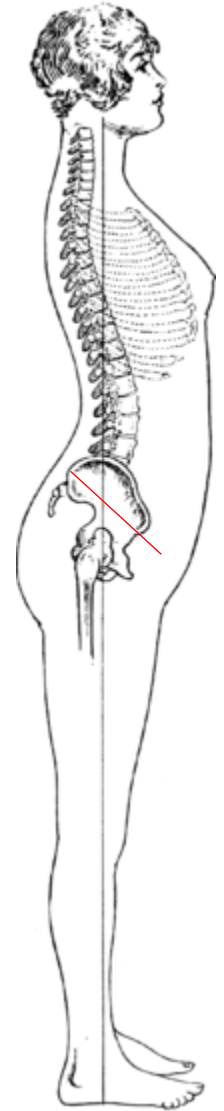
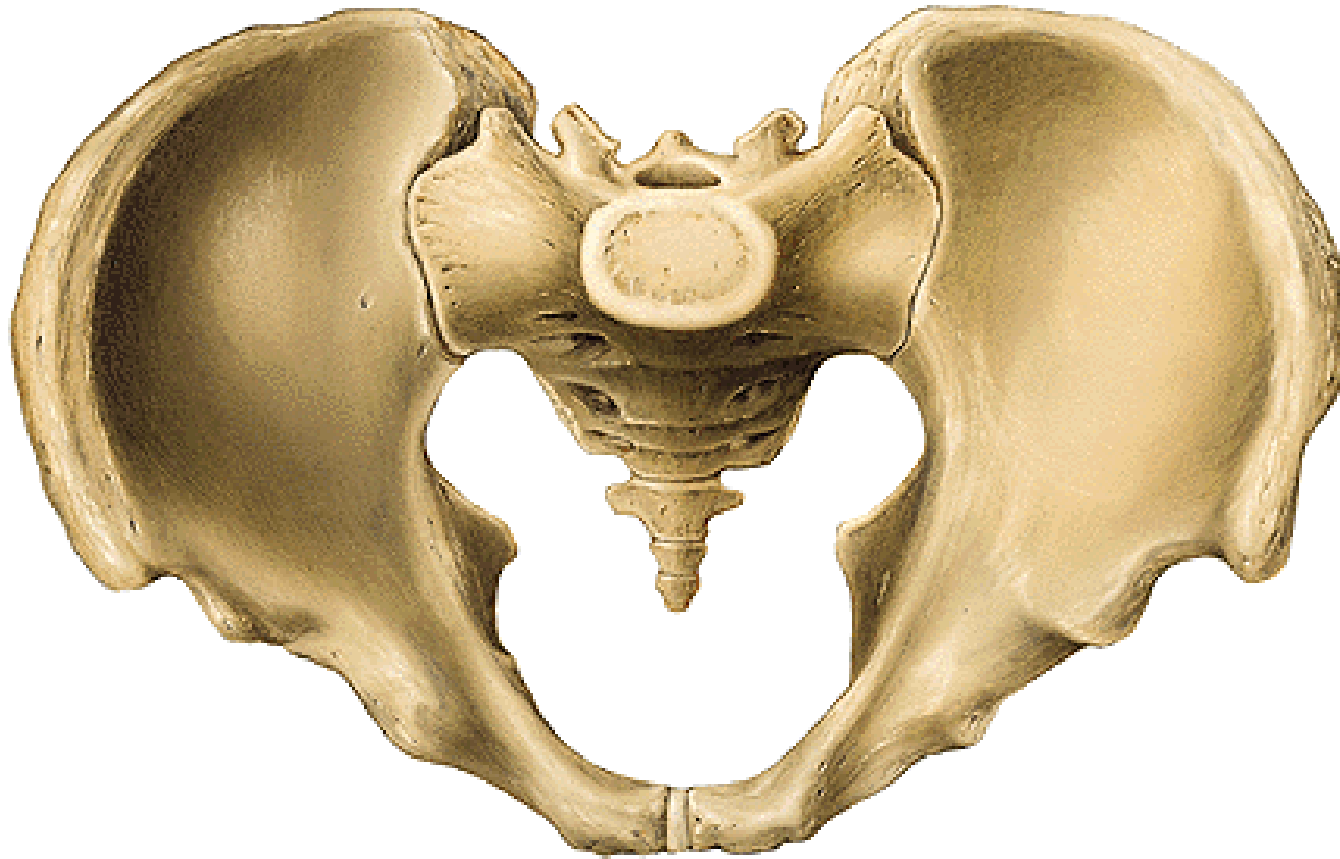
crista phallica

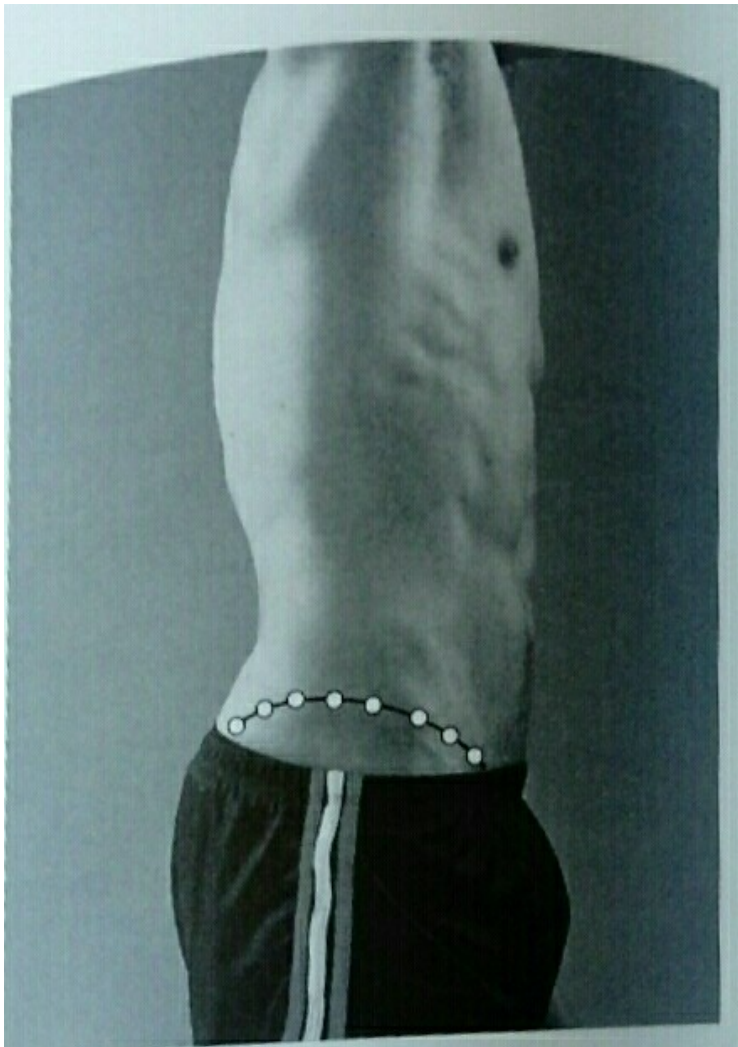




# Pánev (*pelvis*)

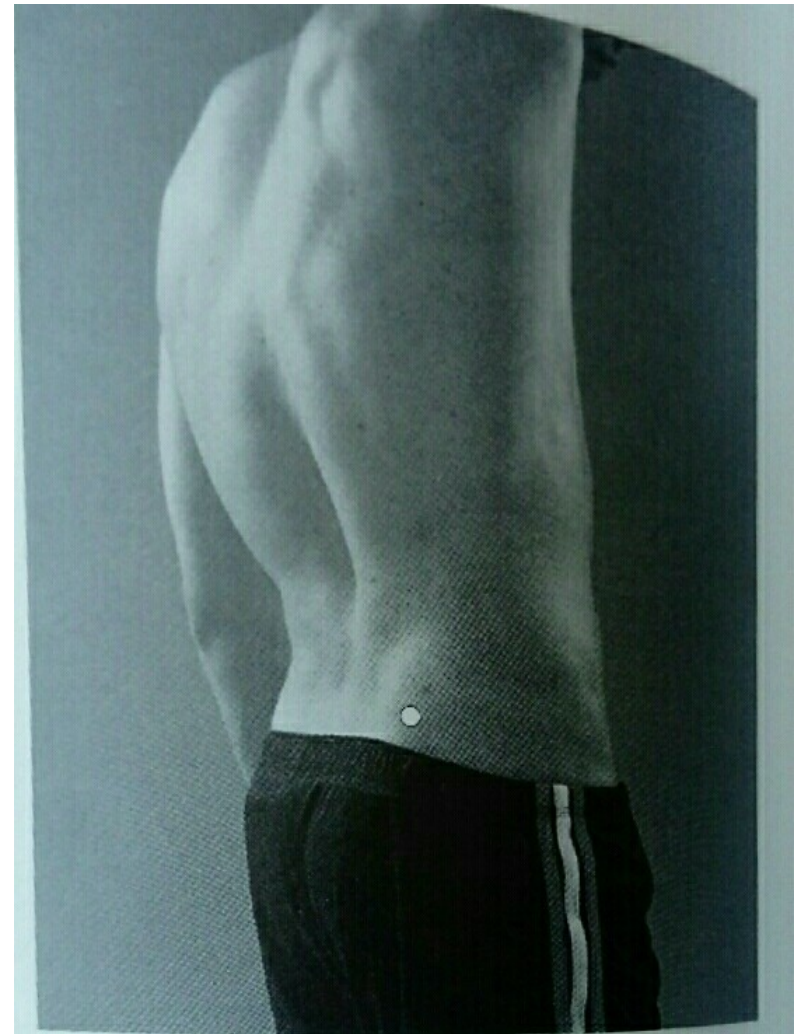
**Sklon pánve** = inclinatio pelvis  $60^\circ$  = úhel roviny vchodu pánevního s horizontální rovinou, důležitý pro vzpřímenou chůzi





■ FIGURE 7.42 Finding the crest of the ilium.

Crista iliaca



■ FIGURE 7.43 Locating the posterior superior iliac spine.

Spina iliaca posterior superior

# Femur – stehenní kost

## Proximální konec

*caput femoris*

*fovea capitis femoris*

## Corpus femoris

*collum femoris* (uvnitř *calcar femorale*)

*trochanter major et minor*

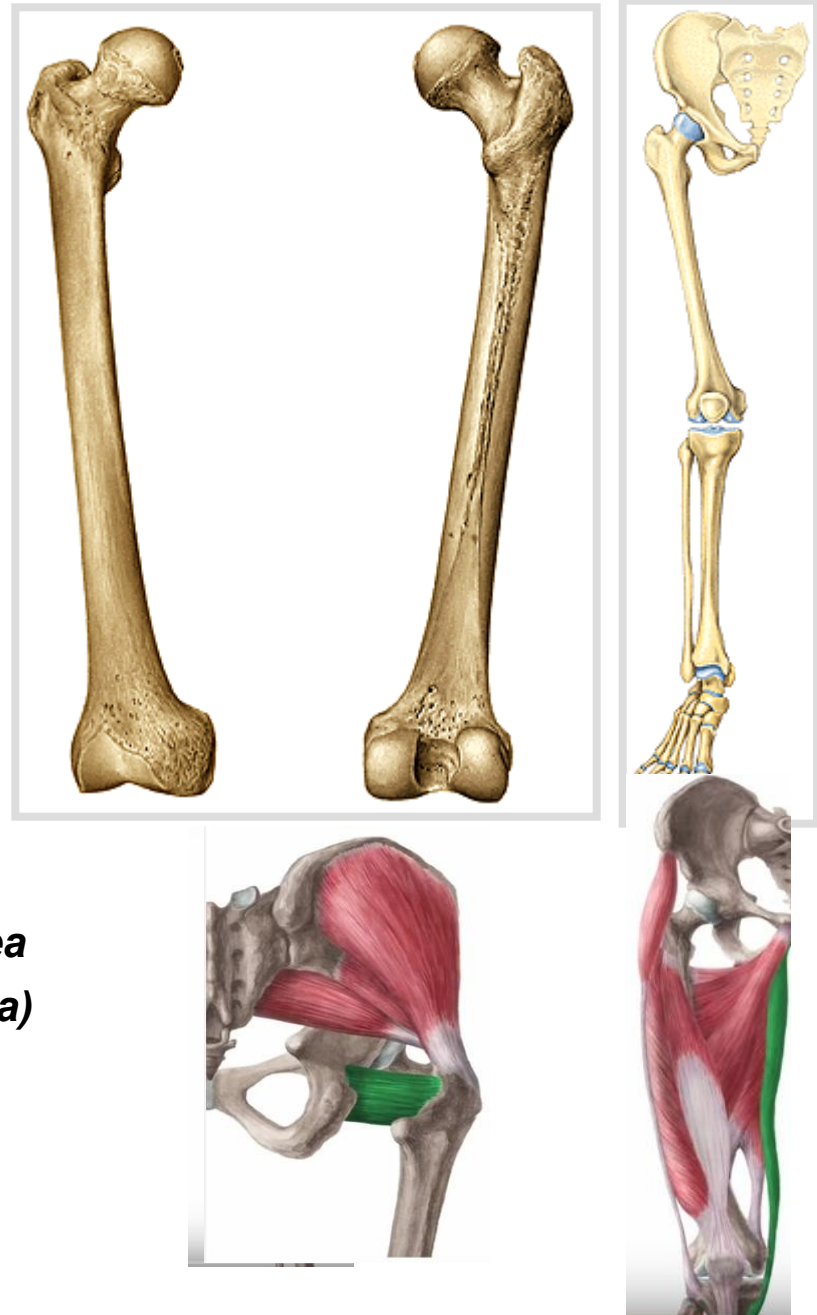
*linea intertrochanterica*

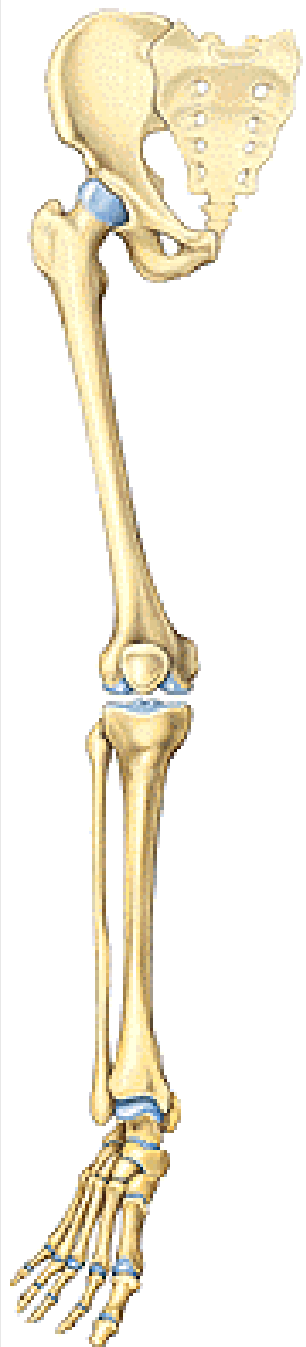
*crista intertrochanterica*

*fossa trochanterica*

*linea aspera* – *labium mediale* (*linea pectinea*) *et laterale* (*tuberositas glutea*)

Calcar femorale = lamina femoris interna





## **Distální konec**

**condylus medialis  
et lateralis**

**facies patellaris**

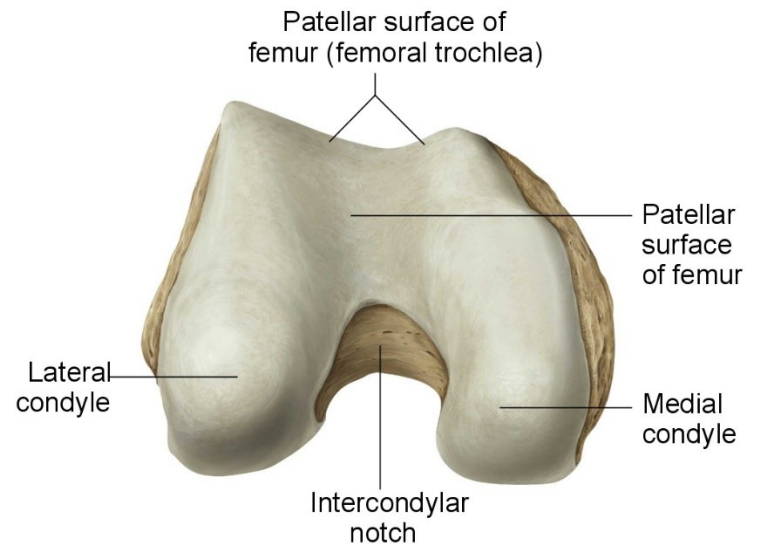
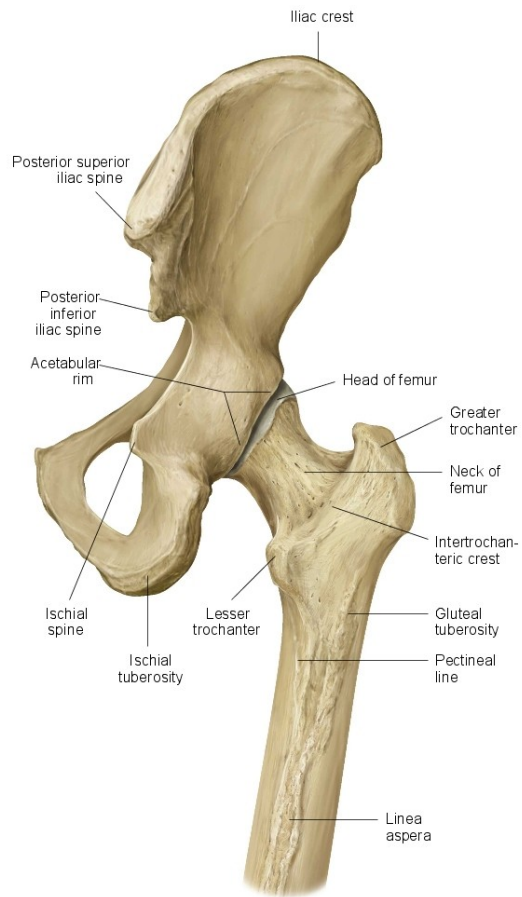
**fossa intercondylaris**

**linea intercondylaris**

**facies poplitea**

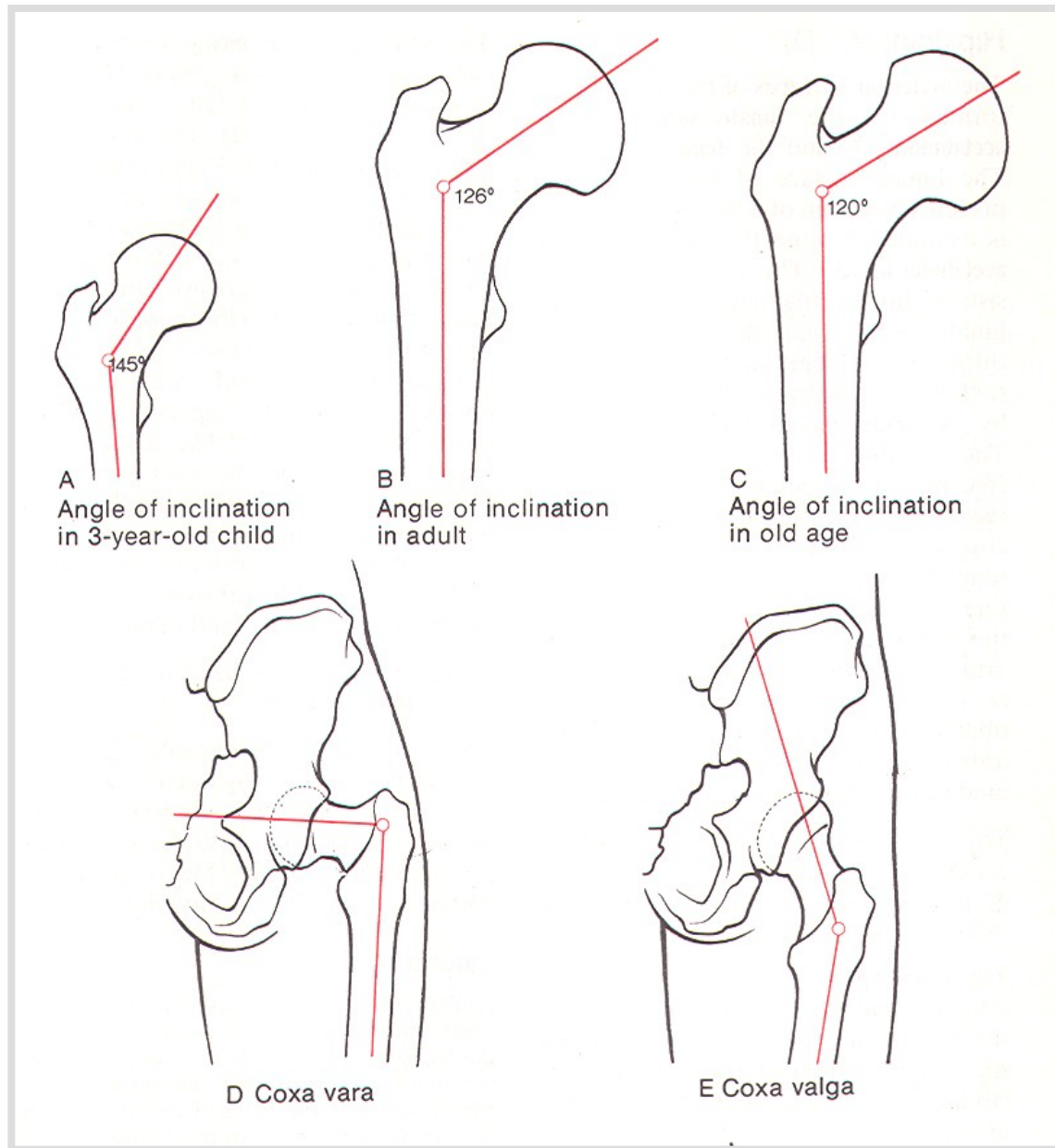






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# Inkлинаční úhel

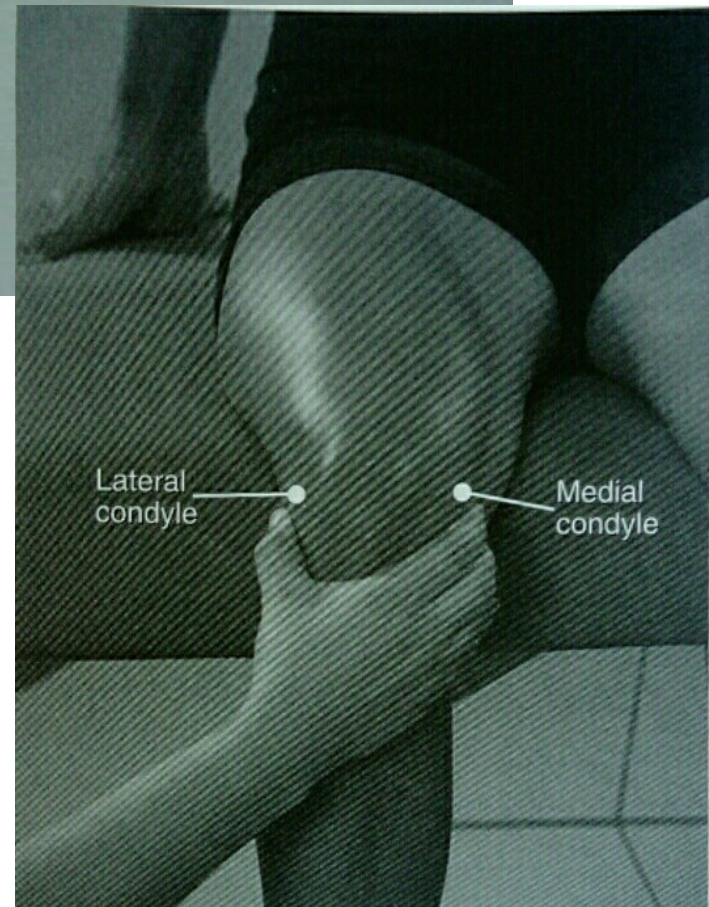


Dlouhá osa těla femuru a osa krčku svírá úhel u dospělého asi  $125^\circ$ , úhel nad  $135^\circ$ =valgózní postavení, pod  $120^\circ$  varózní



■ FIGURE 10.3 Locating the greater trochanter of the femur.

Trochanter major femoris



Condylus medialis et lateralis femoris

# Patella – čéška

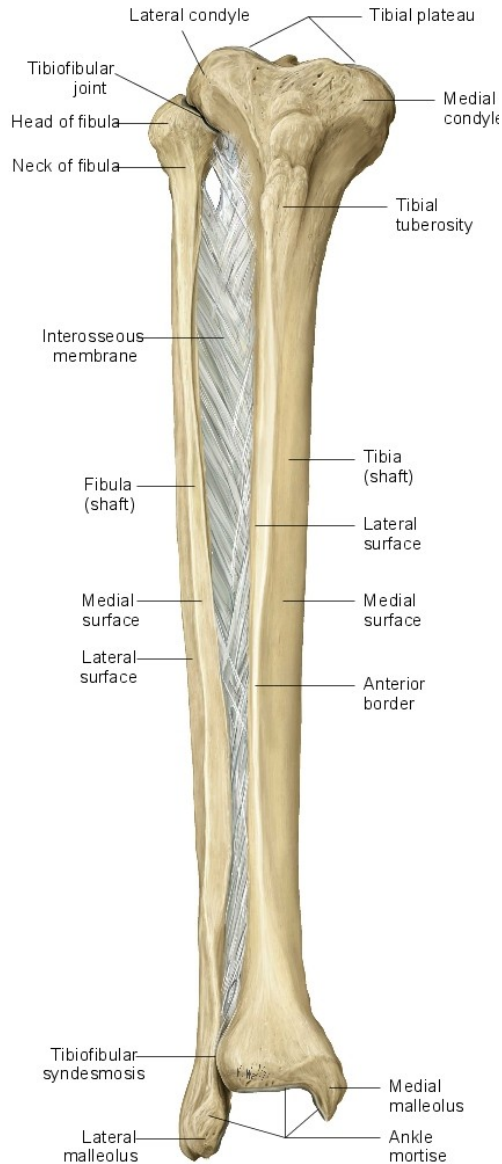
- **basis patellae**
- **apex patellae**
- **facies articularis patellae**



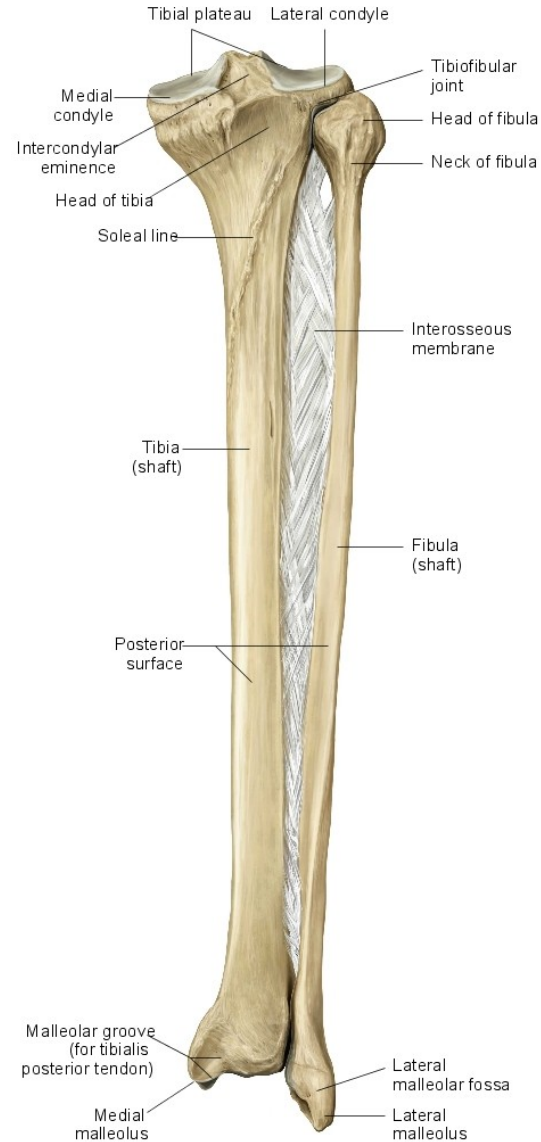
Čéška působí jako kladka - dochází ke změně směru tahu m. quadriceps femoris



# Kosti bérce (*ossa cruris*)



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# Tibia – holenní kost

## Proximální konec

condylus medialis et lateralis

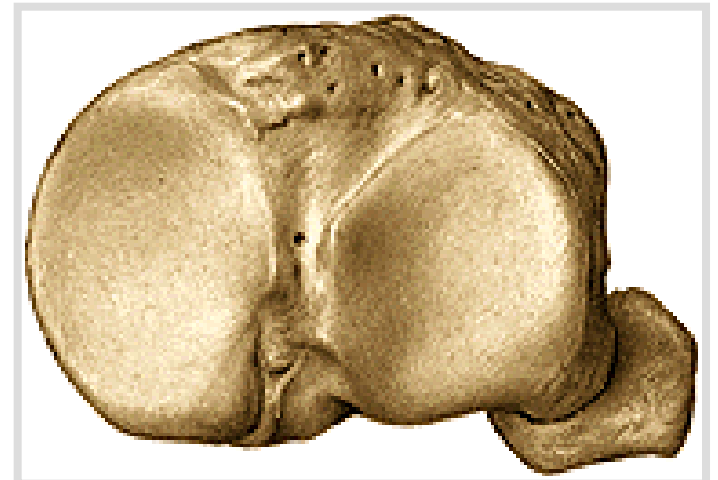
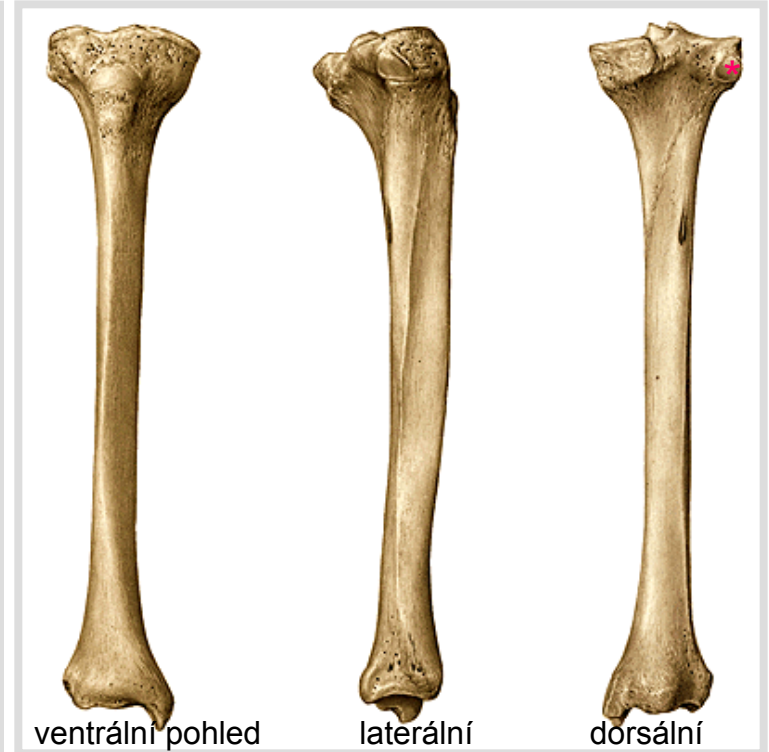
facies articularis superior

eminentia intercondylaris

tuberculum intercondylare  
mediale et laterale

area intercondylaris anterior  
et posterior

facies articularis fibularis\*

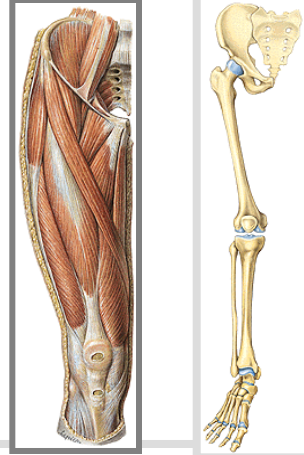


# Corpus

- **tuberositas tibiae**
- **linea musculi solei**
- **margo medialis, anterior et interosseus**

# Distální konec

- **malleolus medialis tibiae**
- **Sulcus malleolaris (pro šlachu m. tibialis posterior)**
- **facies articularis malleoli medialis**
- **incisura fibularis tibiae**
- **facies articularis inferior tibiae**



# Fibula – lýtková kost

## Proximální konec

caput fibulae (facies articularis capitis fibulae), apex capitis fibulae

## Corpus

margo anterior, medialis, posterior et interosseus

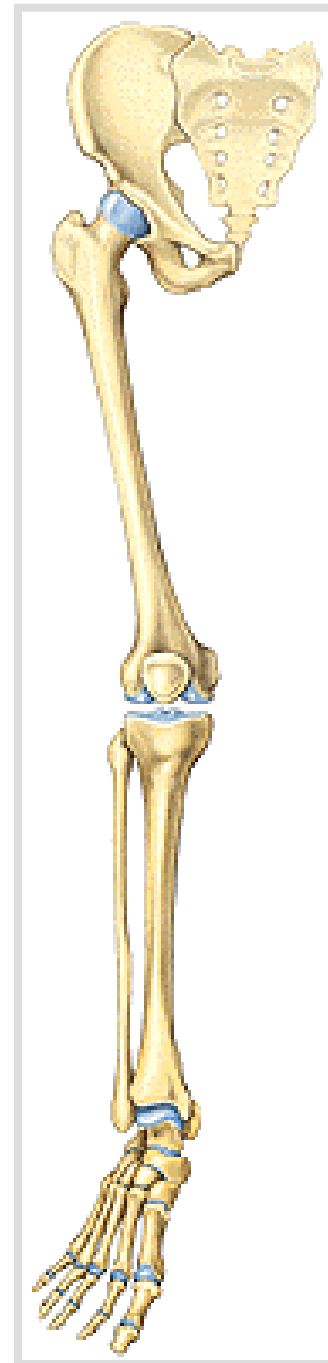
## Distální konec

malleolus lateralis

facies articularis malleoli lateralis

sulcus malleoli lateralis

fossa malleoli lateralis





# Ossa pedis – kosti nohy

I. ossa tarsi (7) - kosti zánártní

II. ossa metatarsi (5) - kosti nártní

III. ossa digitorum pedis (14) - kosti prstů nohy

## Ossa tarsi (kosti zánártní)

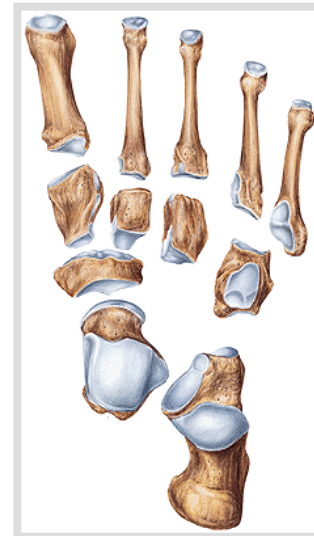
Talus - kost hlezenní

Calcaneus - kost patní

Os naviculare - kost lod'kovitá

Os cuboideum - kost krychlová

Ossa cuneiformia - kosti klínové  
(mediale, intermedium et laterale)





# Ossa tarsi

## Talus – kost hlezenní

- **Caput tali** (facies articularis navicularis)
- **Collum tali**
- **Corpus tali**

**Trochlea tali - facies articularis superior + facies articularis malleolaris lateralis et medialis**

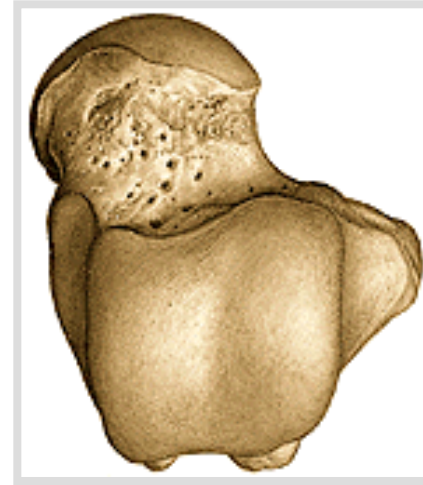
**Facies articularis calcanea posterior, media et anterior tali**

**Sulcus tali**

**Processus lateralis tali**

**Processus posterior tali (tuberculum laterale et mediale tali)**

**Sulcus tendinis musculi flexoris hallucis longi**



# Calcaneus – patní kost



tuber calcanei (processus medialis et lateralis)

facies articularis talaris calcanei - posterior, media et anterior

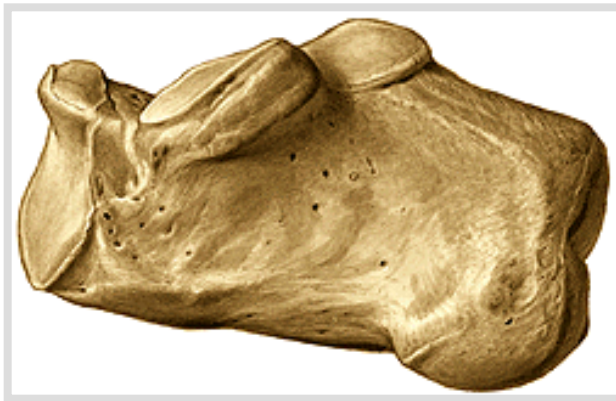
sulcus calcanei \*

sustentaculum tali (+ sulcus tendinis musculi flexoris hallucis longi)

trochlea peronealis\*

facies articularis cuboidea

**sulcus calcanei + sulcus tali = sinus tarsi**





## **Os naviculare - lodkovitá kost**

**tuberositas ossis navicularis** (pro úpon m. tibialis posterior)

## **Os cuboideum - krychlová kost**

**sulcus tendinis musculi fibularis/peronei longi\***

## **Ossa cuneiformia - kosti klínové mediale, intermedium et laterale**

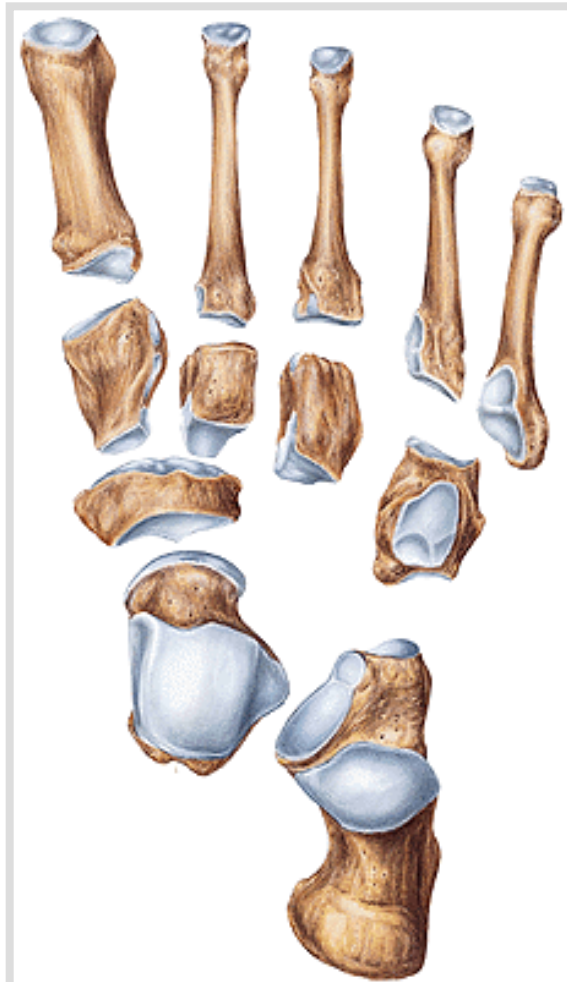


# Ossa metatarsi ( I. – V.) - nártní kosti

**basis (tuberositas ossis metatarsi I. et V. - úpon mm. fibulares)**

**corpus**

**caput (+ossa sesamoidea med. a lat. u palce)**



# **Ossa digitorum pedis** (phalanges) - kosti prstů nohy

palec – phalanx proximalis et distalis

II. – V. prst – phalanx proximalis, media et distalis

basis phalangis

corpus phalangis

caput/trochlea (u distálního článku – tuberositas phalangis distalis)



## **Použité obrázky byly převzaty z**

**Čihák, R. (1987):** Anatomie 1. Avicenum, Zdravotnické nakladatelství.

**Gilroy, A. M. et al. (2009):** Atlas of Anatomy. Thieme New York, Stuttgart.

**Putz, R. (2008):**  
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**Keith L. Moore, Arthur F. Dalley (2005):**  
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**Platzer, W., Kahle, W., Leonhardt H. (1992):**  
**Locomotor system. Georg Thieme Verlag, Stuttgart,  
New York, 4th edition.**