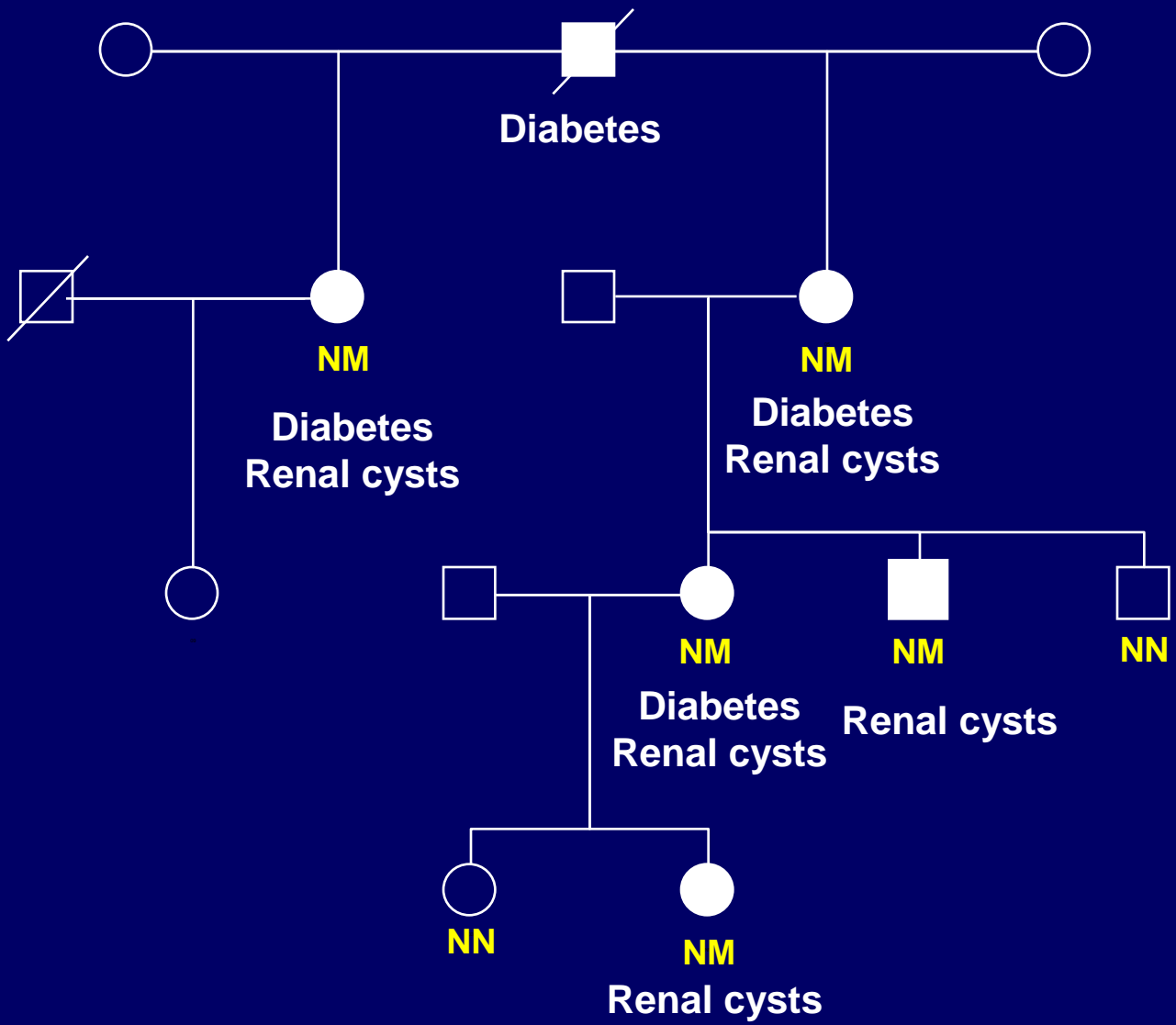


# **HNF1B and the kidney**

**Dr Coralie Bingham**

# Renal Cysts And Diabetes (RCAD)

- **Renal cysts** (seen in utero)
- **Renal function variable - mild impairment – dialysis dependent**
- **Variable renal histology**
- **Diabetes** typically develops after renal disease



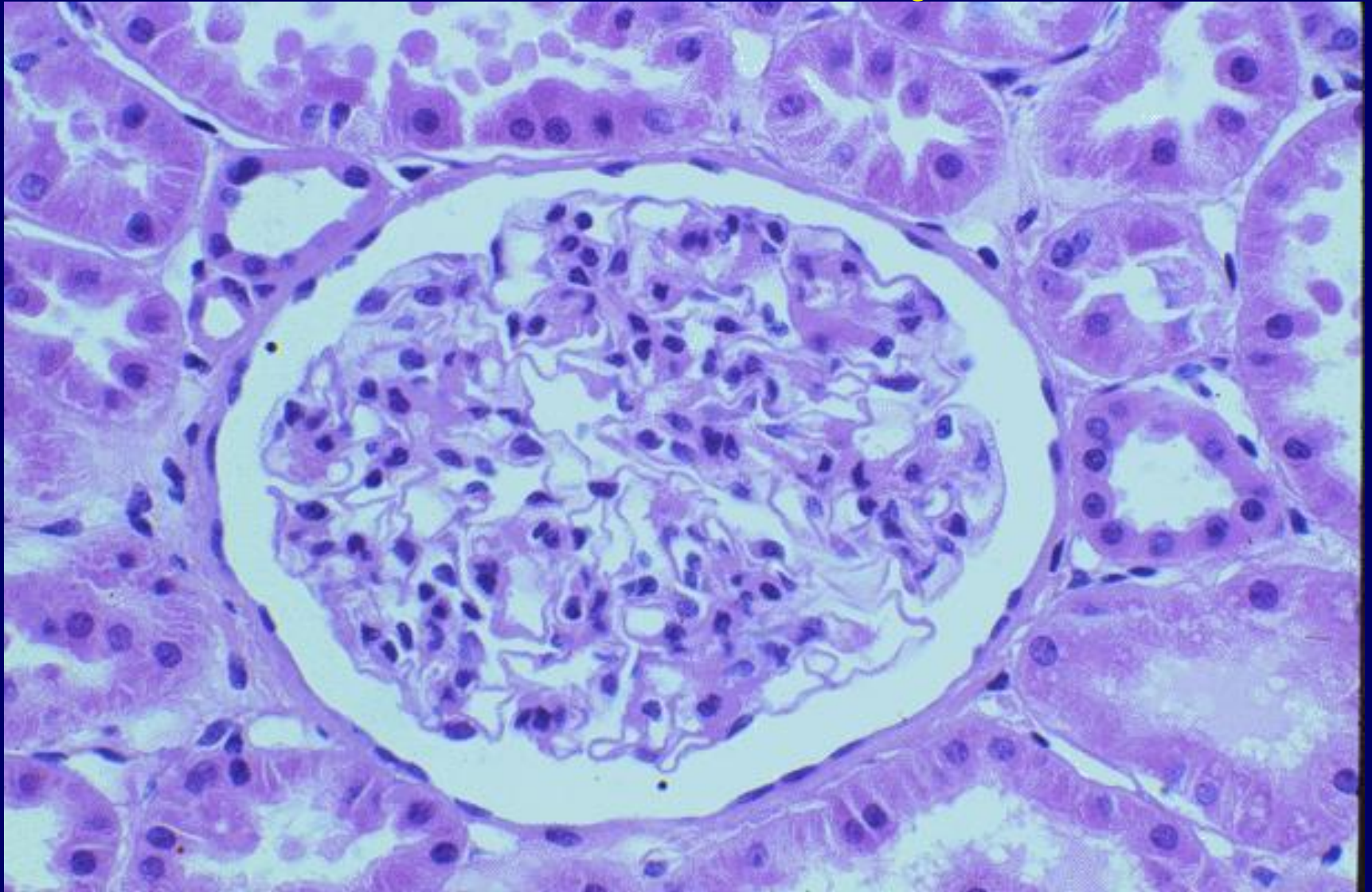
# Normal kidney



# HNF1B kidney

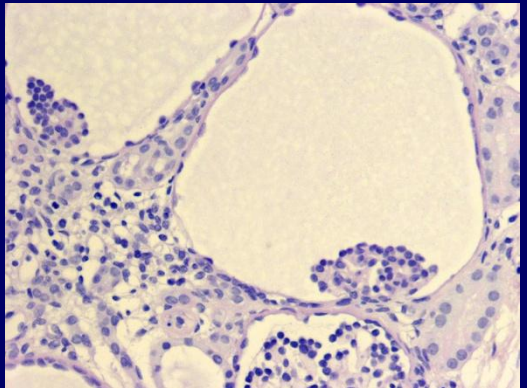
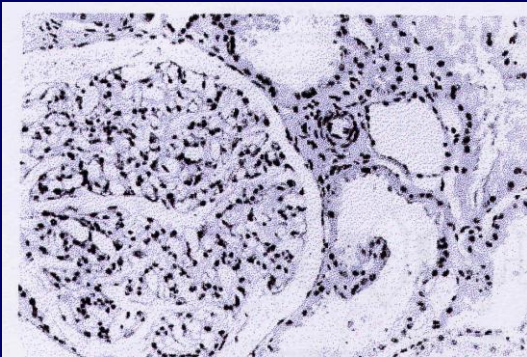
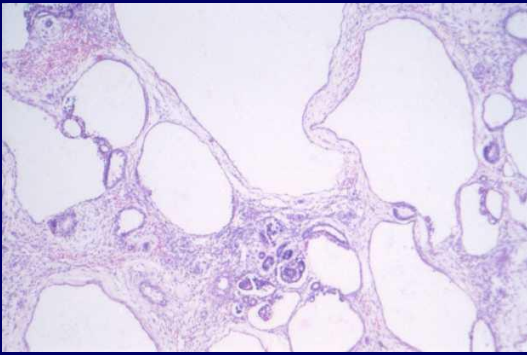


# Normal kidney

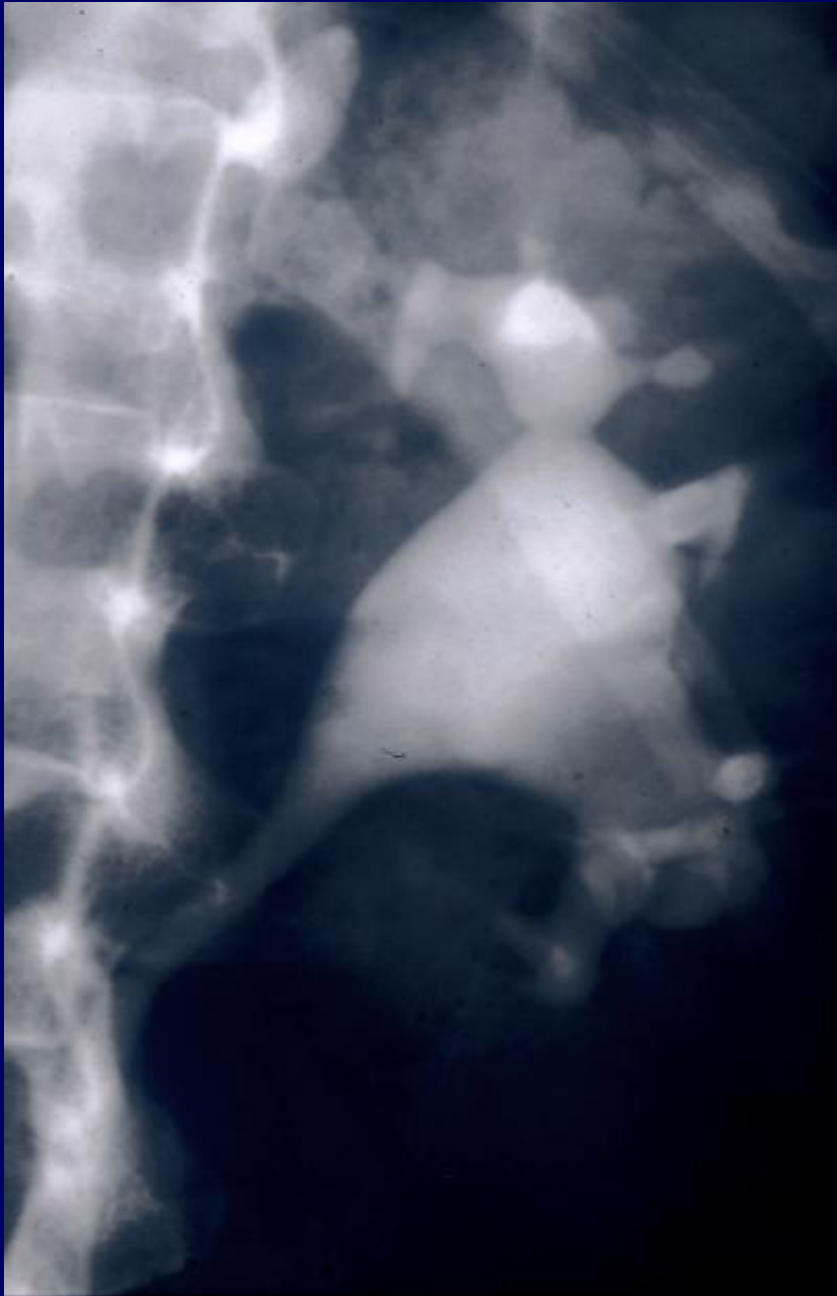




# HNF1B kidney



**Abnormal kidney  
development**



- **Single left kidney of normal size**
- **Calyces abnormal and blunted**

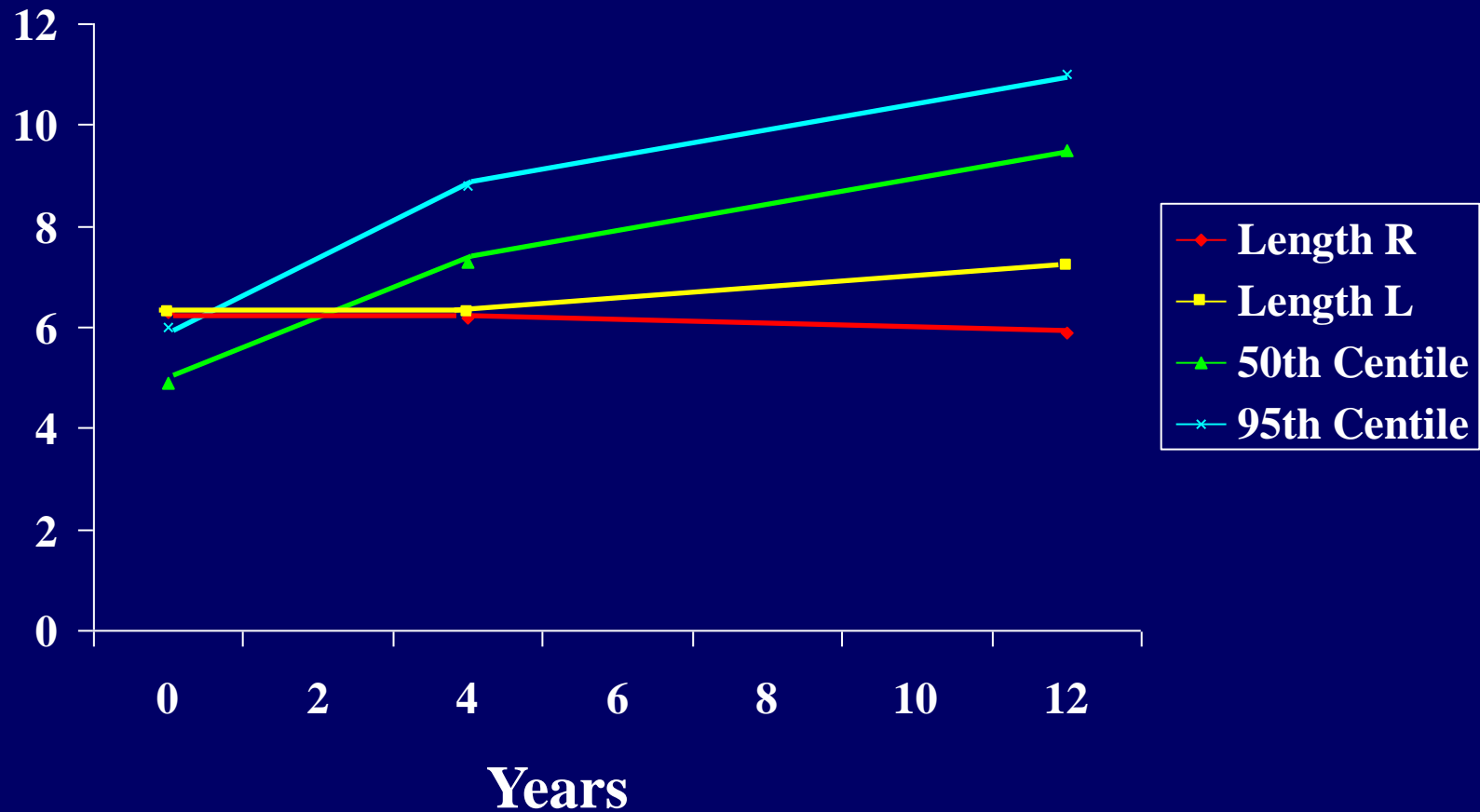


# Horseshoe kidney



# HNF-1B mutations affect renal growth

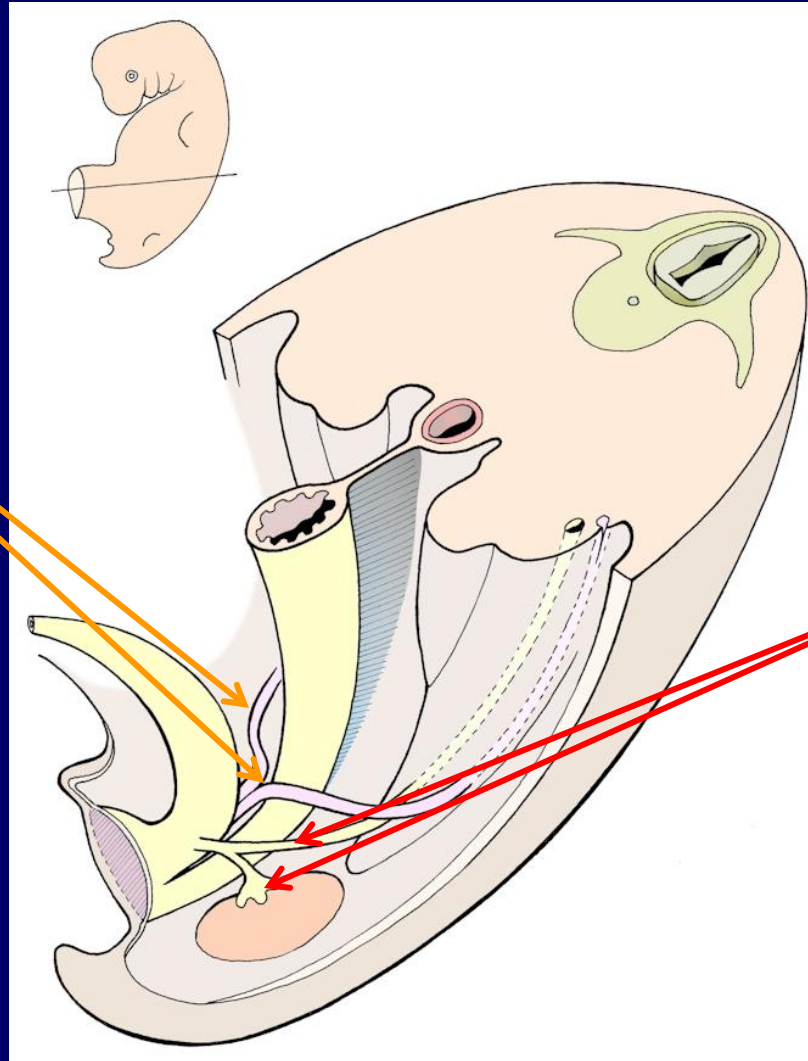
Length (cm)



**It's not just renal cysts and  
diabetes ....**

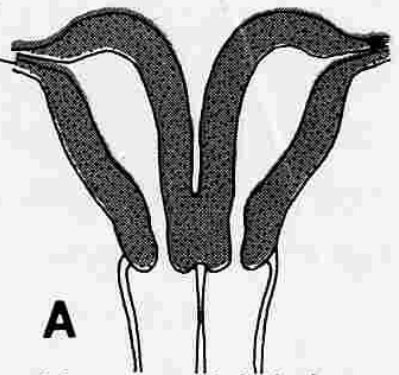
# Embryology

Mullerian duct  
(paramesonephros)



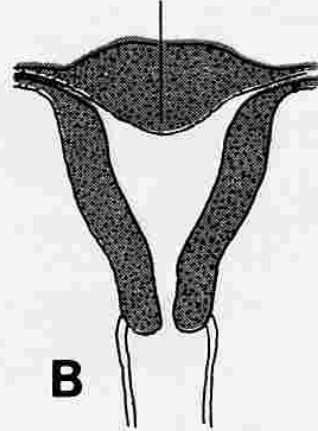
Wolffian  
(mesonephric)  
duct and ureteric bud

Uterine  
tube

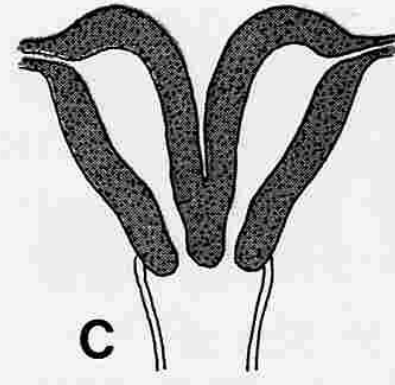


**A**  
Uterus didelphys  
with double vagina

Indentation



**B**  
Uterus arcuatus



**C**  
Uterus bicornis

A

