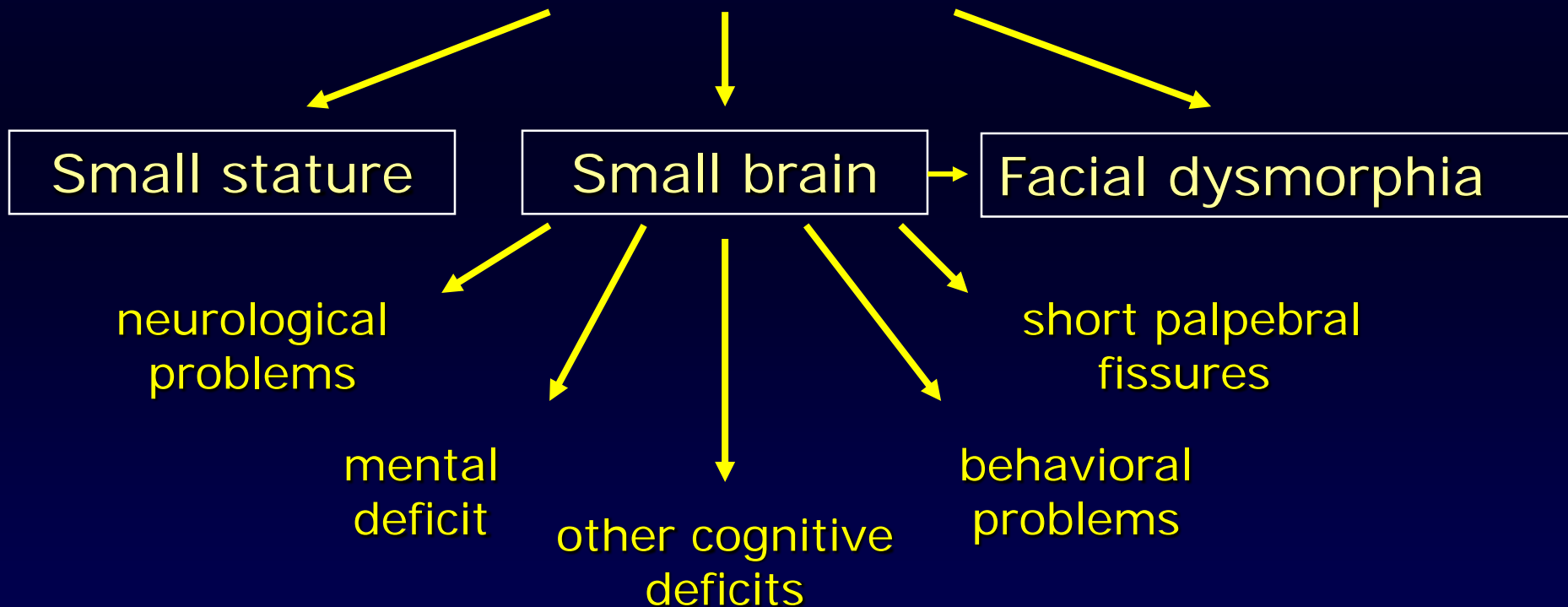


Fetal Alcohol Syndrome (FAS)

- Pre and postnatal growth deficiency
- Microcephaly
- Variable I.Q.
- Craniofacial anomalies
 - Short palpebral fissures
 - Smooth philtrum, thin upper lip
 - Maxillary hypoplasia
- Varied learning and behavioral deficits
- Etiology: EtOH, no amount is considered safe in first trimester.

Prenatal Alcohol Exposure

Cell Proliferation and Growth



Alcohol-related Growth Retardation



- Prenatal
- Postnatal
 - brain size
 - body weight
 - body length
 - fat tissue mass



Dizygotic twins with probable fetal alcohol injury. The boy has apparent thin upper lip and smooth philtrum. Both have significant learning delay.



In this child with fetal alcohol syndrome, there is midface Hypoplasia and a somewhat smooth hypoplastic philtral/mouth area.



Classical appearance of a child with Fetal Alcohol Syndrome



Neonate with significant fetal alcohol exposure. However, ethnic and familial traits must be taken into consideration as they can mimic the facial changes of FAS. It is often difficult to diagnose Fetal Alcohol Syndrome in neonates.

Diagnostic Criteria for FAS

Adapted from IOM, 1996

- Confirmed maternal alcohol exposure
- Characteristic face
 - short palpebral fissures
 - flat philtrum, thin upper lip
 - diminished midface
- Growth retardation
- CNS developmental problems
 - decreased head circumference at birth
 - structural brain abnormalities
 - neurological hard or soft signs