

## Congenital Hypothyroidism



PLAY PICMONIC

### Etiology

#### Thyroid Hypoplasia

[Thigh-droid Hippo-plates](#)

Congenital hypothyroidism is commonly acquired sporadically, most often due to thyroid hypoplasia, dysplasia, or aplasia. Less commonly, it can be due to maternal antithyroid antibodies, goiter, peripheral resistance, and iodine deficiency.

### Assessment

#### Asymptomatic

[Thumbs-up](#)

Congenital hypothyroidism is often asymptomatic at birth as the placenta was previously supplying maternal thyroid (T4) hormones.

### 7Ps

#### Pot-Bellied

[Cooking Pot on Belly](#)

If the neonate is symptomatic, then the **7Ps** of congenital hypothyroidism can involve the neonate being **Pot**-bellied, **Pale**, **Puffy**-faced, **Protruding** umbilicus, **Protuberant** tongue, **Poor** brain development, and **Prolonged** neonatal jaundice.

#### Pale

[Pail](#)

If the neonate is symptomatic, then the **7Ps** of congenital hypothyroidism can involve the neonate being **Pot**-bellied, **Pale**, **Puffy**-faced, **Protruding** umbilicus, **Protuberant** tongue, **Poor** brain development, and **Prolonged** neonatal jaundice.

#### Puffy-Faced

[Puffy-coat Face](#)

If the neonate is symptomatic, then the **7Ps** of congenital hypothyroidism can involve the neonate being **Pot**-bellied, **Pale**, **Puffy**-faced, **Protruding** umbilicus, **Protuberant** tongue, **Poor** brain development, and **Prolonged** neonatal jaundice.

## Protruding Umbilicus

### Protruding Umbrella

If the neonate is symptomatic, then the **7Ps** of congenital hypothyroidism can involve the neonate being **P**ot-bellied, **P**ale, **P**uffy-faced, **P**rotruding umbilicus, **P**rotuberant tongue, **P**oor brain development, and **P**rolonged neonatal jaundice.

## Protuberant Tongue

### Protruding Tongue

If the neonate is symptomatic, then the **7Ps** of congenital hypothyroidism can involve the neonate being **P**ot-bellied, **P**ale, **P**uffy-faced, **P**rotruding umbilicus, **P**rotuberant tongue, **P**oor brain development, and **P**rolonged neonatal jaundice.

## Poor Brain Development

### Poor Brain Developing-Child

If the neonate is symptomatic, then the **7Ps** of congenital hypothyroidism can involve the neonate being **P**ot-bellied, **P**ale, **P**uffy-faced, **P**rotruding umbilicus, **P**rotuberant tongue, **P**oor brain development, and **P**rolonged neonatal jaundice.

## Prolonged Neonatal Jaundice

### Prolonged Newborn Jaundice-janitor

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## Diagnosis

### Neonatal Screening

#### Neon-baby and Screen-door

As most neonates are asymptomatic in congenital hypothyroidism, it becomes important to rely on neonatal screening within the first 24-48 hours. TSH levels are measured, and if congenital hypothyroidism is diagnosed and addressed early, then therapy can be initiated and irreversible brain disabilities potentially avoided.

### Increased TSH

#### Up-arrow Tissue-box

Neonatal screening to evaluate TSH levels is performed within the first 24-48 hours after birth. Elevated levels of TSH can indicate congenital hypothyroidism.

## Treatment

### Lifelong Replacement Hormone

#### Lifelong-commitment Harmonica

Congenital hypothyroidism involves the lifelong replacement of thyroid hormone with optimal normalization within 2-3 weeks in order to protect the brain from substantial damage.