

# **Thyroid Function in Health & Psychiatric Disorders**

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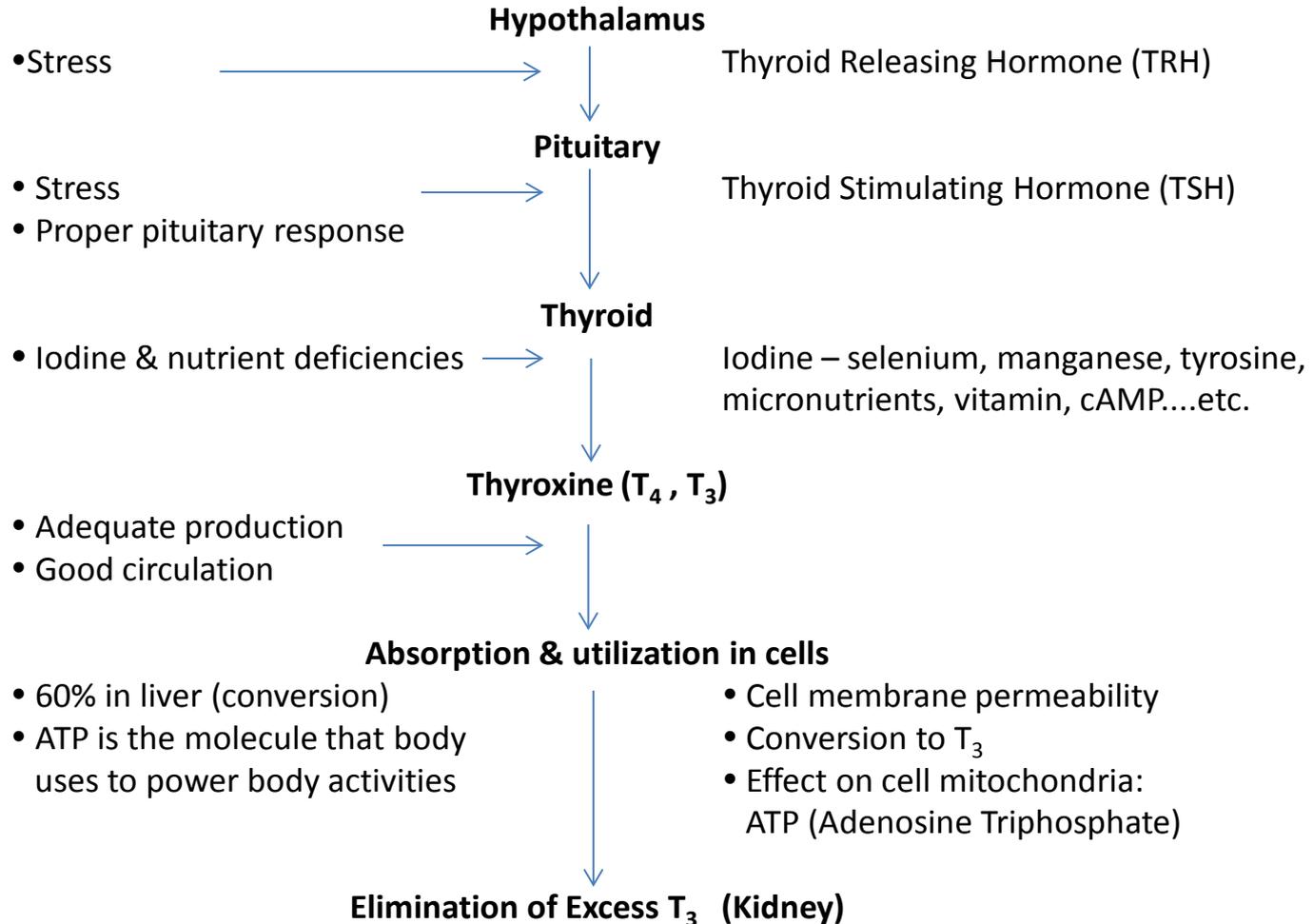
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# Thyroid & Health

Thyroid hormone “Thyroxine-T4 & T3” is essential for proper body functions, both physical and mental.

It affects DNA and protein synthesis, body weight, heart rate, blood pressure, respiration, muscle strength, sleep, sexual functioning, mental functioning, such as cognitive ability, affect and mood stability among many others...etc.

# Control of Thyroid Functions\*



\* Abnormalities at any stage can lead to abnormal thyroid state

# Common Thyroid Dysfunctions

- Hypothyroidism
- Hyperthyroidism or Grave's disease
- Hashimoto's Thyroiditis
- Goiter
- Thyroid nodule
- Thyroid cancer

# Thyroid Disorders and Mental Disorders

- Prominent mental disorders can accompany thyroid disorders
- Thyroid hormones as adjunctive to psychiatric treatments
- Psychiatric medications have an effect on the thyroid (Lithium....etc.)

# Hyperthyroidism

- Role of stress & emotional upheaval – predispose to thyroid dysfunction
- Alternatively, emotional upheaval is the result of evolving hyperthyroid state
- No consistent personality type
- Full picture:
  - anxiety, tension
  - irritability
  - mood lability
  - distractible overactivity
  - fluctuating depression & mood states
  - sensitivity to stimuli and environment, for example: noise
  - psychotic symptoms, delirium can accompany “thyroid crisis”
- Symptoms respond and resolve with treatment

# Hypothyroidism

- Develops slowly, minor vague early complaints can make early diagnosis difficult
- Frequently, mental symptoms are the earliest to bring to medical attention
- Clinical picture:
  - mental slowness
  - loss of interest and initiative
  - cognitive and memory difficulties
  - muddled and not clear thinking
  - depression with paranoid trends
  - organic psychosis
  - Myxedema dementia in severe cases

# Subclinical Hypothyroidism (SCH)

- Prevalence in general population 5%, in women over age 60: 20%
- Relatively common, but frequently missed
- Elevated serum TSH, but normal thyroid hormone levels
- Mild cognitive and neuropsychiatric dysfunctions
- Few or no overt clinical symptoms, but frequent mild hypothyroid symptoms; low energy, dry skin, cold intolerance, some hair loss
- May have hyperlipidemia, cardiac problems

# Conclusions

- Strong link between thyroid and psychiatric dysfunction
- Optimal thyroid function depends on availability of adequate nutritional and micronutrients and, specifically, the availability of iodine
- Consider suboptimal thyroid states (it is real and does exist according to epidemiological studies)
- Thyroid disturbances are treatable and respond to treatment, but they have to be recognized early

# Think Thyroid!!

The thyroid just might be the sleeper in emotional and psychiatric problems.