

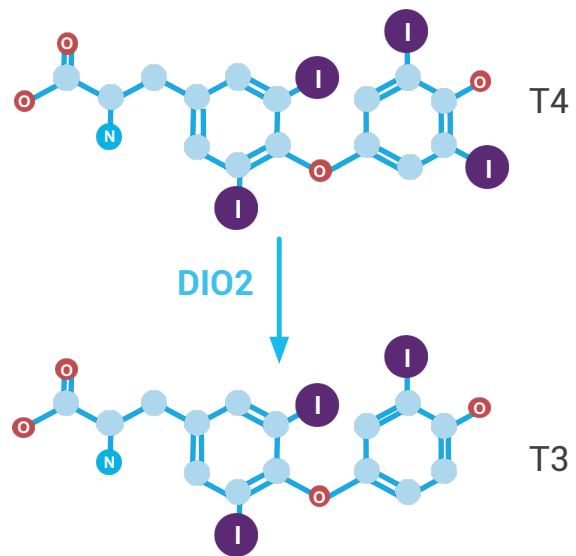
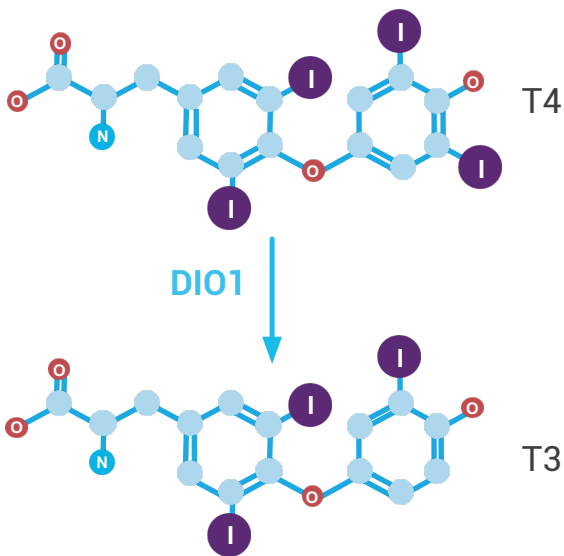
THYROID PHYSIOLOGY

Comprehending thyroid hormone metabolism

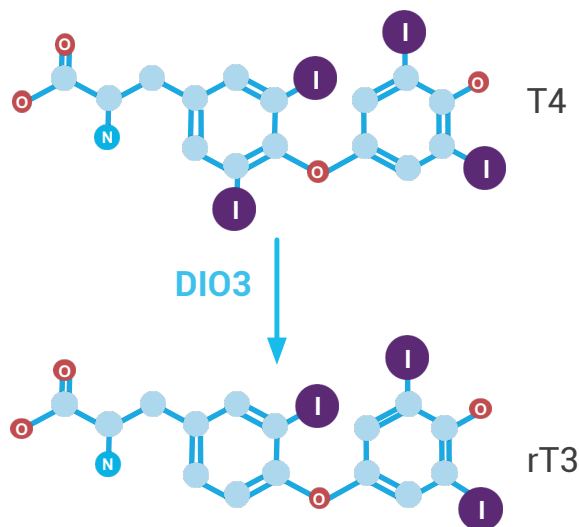
The “pro-hormone” T4 is converted to active T3 by enzymes at the various target tissues. These enzymes are known as deiodinases.

Type 1 deiodinase is primarily a tissue deiodinase, and converts T4 to T3 in the **peripheral tissues**.

Type 2 deiodinase is located in the brain, and converts T4 to T3 at the level of the **pituitary gland**.



Type 3 deiodinase **deactivates** T4, converting it to inactive reverse T3. It is present in the **placenta** and the **brain**.



Thyroid hormone activity is regulated in part by these deiodinases, which maintain a balance between active T3 and inactive reverse T3 (rT3).