

Table 2. Iodine handling by the thyroid gland and seaweed

Thyroid gland

- Takes up iodide
 - Accumulates iodide against a concentration gradient (NIS)
 - Concentrates iodide up to 20-40 times that of the bloodstream
 - Organifies iodide to iodine
 - Leads to formation of thyroid hormones
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Seaweed

- Takes up iodide
 - Mechanisms of uptake and retention uncertain
 - Can accumulate and retain iodide against a concentration gradient
 - Concentrates iodide up to 60,000 times that of the seawater
 - Role of iodine in seaweed unknown
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