

**BIOTIN**

<b>Trade Name</b>	Biotin Capsules (Optimus)
<b>Class</b>	Water soluble vitamin (also known as vitamin B <sub>7</sub> or vitamin H)
<b>Mechanism of Action</b>	Biotin is a vitamin required for breakdown of protein, fat and carbohydrate
<b>Indications</b>	Biotinidase deficiency – this enzyme helps recycle biotin to be used by the body
	Signs and symptoms of biotinidase deficiency evolve over weeks to months and include seizures, hypotonia, weakness, developmental delay, ataxia, skin rash, alopecia, metabolic ketoacidosis and aciduria  Note: Most cases will be detected on the Guthrie test at 48 hrs of age
<b>Contraindications</b>	Hypersensitivity to biotin
<b>Supplied As</b>	50 mg
<b>Dilution</b>	Mix the contents of ONE capsule with 5mL of sterile water to give a 10mg/mL solution.
<b>Dosage</b>	Start with 10 mg (not weight based)  Dose range (5-20mg) with dose changes on the advice of the Metabolic Specialist
<b>Interval</b>	ONCE a DAY
<b>Administration</b>	Give via mouth or NG/NJ tube.
<b>Compatible With</b>	Do not mix with any other medications.
<b>Incompatible With</b>	Do not mix with any other medications.
<b>Interaction</b>	Biotin supplementation has been reported to interfere with thyroid function tests and cause falsely low readings for TSH
<b>Monitoring</b>	Nil known.
<b>Stability</b>	Prepare each dose immediately prior to use and discard the remainder.
<b>Storage</b>	Store dry powder in an airtight container at room temperature, protected from light and moisture.
<b>Adverse Reactions</b>	No known adverse effects.
<b>Metabolism</b>	Rapidly absorbed from the stomach no known metabolic pathways.

<b>Comments</b>	<p>If potential for biotinidase deficiency is diagnosed antenatally please contact pharmacy as soon as possible to allow time to source a supply.</p> <p>Biotin is not a registered medicine in NZ, supply is often difficult NPPA application will be required for funding supply on discharge.</p>
<b>References</b>	<ol style="list-style-type: none"> <li>1. <a href="http://www.uptodate.com">www.uptodate.com</a></li> <li>2. <a href="http://www.nzf.org.nz">www.nzf.org.nz</a></li> <li>3. Medicines for Children RCPCH 2005, NPPG UK</li> <li>4. Taketomo et al Pediatric and Neonatal Dosage Handbook 19<sup>th</sup> edition. Lexicomp</li> <li>5. <a href="https://ods.od.nih.gov/factsheets/Biotin-HealthProfessional/">https://ods.od.nih.gov/factsheets/Biotin-HealthProfessional/</a></li> <li>6. Amenable Treatable Severe Pediatric Epilepsies. <i>Seminars in Ped Neurol.</i> 23:158-166.</li> </ol>
<b>Updated By</b>	A Lynn, B Robertshawe, P Shillito July 2022