

<b>Indication</b>	Fat supplementation for neonates unable to digest or absorb conventional fats.
<b>Action</b>	50% Medium Chain Triglyceride and 50% water. MCTs are more readily hydrolyzed and absorbed than long chain fats. MCTs are absorbed directly into the portal circulation and do not require bile salts for emulsification.
<b>Drug Type</b>	50% MCT and 50% water. Source of Oil: coconut and/or palm kernel oil. Also contains water, Emulsifiers (E472c, E471) and Citric Acid.
<b>Trade Name</b>	Liquigen
<b>Presentation</b>	250 mL. Approximately 0.5 g MCT/mL fat giving 4.5 kcal/mL.
<b>Dosage / Interval</b>	1–2 g/kg/day (2-4 mL/kg/day) in 3-4 divided doses.
<b>Maximum daily dose</b>	4 g/kg/day
<b>Route</b>	ORAL
<b>Administration</b>	Oral or via intra gastric tube. DO NOT GIVE IV!
<b>Precautions</b>	MCT oil can adhere to feeding tubes resulting in loss of nutrient. <sup>3</sup>
<b>Contraindications</b>	Acute intestinal obstruction Acute necrotising enterocolitis
<b>Adverse Reactions</b>	Lipid aspiration pneumonia <sup>4</sup>
<b>Stability</b>	
<b>Storage</b>	Store in room temperature. Once opened, store in refrigerator and discard any remaining contents after 14 days <sup>4</sup>
<b>Evidence summary</b>	High concentrations of MCTs have been used in some preterm formulas to increase the coefficient of fat absorption of preterm infants. Beside their good absorption even in the presence of low luminal bile salts and pancreatic lipases, further arguments for the use of MCTs include are their carnitine-independent transport into the mitochondria and subsequent oxidation that is more rapid than for longer chain fatty acids. <sup>1</sup> An RCT conducted by Vaidya et al in very low birth weight infants showed a significant weight gain in VLBW infants supplemented with MCT oil. <sup>2</sup>
<b>References</b>	<ol style="list-style-type: none"> <li>1. Koletzko B, Poindexter B, Uauy R (eds). Nutritional care of preterm infants: Scientific basis and practical guidelines. Worl Rev Nutr Diet. Baeel, Karger, 2014, vol 110, pp 82-98.</li> <li>2. Vaidya UV, Hegde VM, Bhave SA, Pandit AN. Vegetable oil fortified feeds in the nutrition of very low birthweight babies. Indian pediatrics. 1992 Dec 1;29(12):1519-27.</li> <li>3. Mehta NR, Hamosh M, Bitman J, Wood DL. Adherence of medium-chain fatty acids to feeding tubes of premature infants fed formula fortified with medium-chain triglyceride. J Pediatr Gastroenterol Nutr. 1991;13:267-9.</li> <li>4. Wolfson BJ, Allen JL, Panitch HB, Karmazin N. Lipid aspiration pneumonia due to gastroesophageal reflux. Pediatric radiology. 1989 Sep 1;19(8):545-7.</li> <li>5. Liquigen. Nutricia Advanced Medical Nutrition. Product information accessed on 28 June 2018.</li> </ol>

<b>Original version Date:</b>	<b>Author: Srinivas Bolisetty</b>
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