






Sickle Cell Nutrition is an emerging management option in Sickle Cell Disease. Therefore, addressing the nutritional deficiencies, growth delays and nutritional risks linked to the clinical features of the condition, is essential. This leaflet provides an overview of how to optimise the nutritional status of people affected by SCD. Below are 3 key factors to consider:

1. RECOGNISE HOW SICKLE CELL AFFECTS YOUR NUTRITIONAL NEEDS:

CHRONIC HAEMOLYSIS 	VASO OCCLUSION 	IMPAIRED IMMUNITY 		
<p>IMPACT</p> <ul style="list-style-type: none"> • High Resting Energy Expenditure • High protein turnover • High red blood cell turnover • Increased cardiac demand/expenditure • Chronic anaemia and fatigue • Increased oxidative stress • Chronic inflammation • Impaired immunity 	<p>NUTRIENTS</p> <table border="0"> <tr> <td> <p>Macro nutrients:</p> <ul style="list-style-type: none"> • Carbohydrates • Fats • Proteins </td> <td> <p>Micro-nutrients:</p> <ul style="list-style-type: none"> • Vitamins (A, C, E, D, Folic acid) • Minerals (Zinc, Selenium, Iron) • Omega 3 Fatty acids </td> </tr> </table> 		<p>Macro nutrients:</p> <ul style="list-style-type: none"> • Carbohydrates • Fats • Proteins 	<p>Micro-nutrients:</p> <ul style="list-style-type: none"> • Vitamins (A, C, E, D, Folic acid) • Minerals (Zinc, Selenium, Iron) • Omega 3 Fatty acids
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2. MAKE GOOD NUTRITIONAL CHOICES | TIPS AND CHOICES TO HELP OPTIMISE NUTRITION

 <p>ENERGY BOOSTING</p> <p>Include carbohydrate rich food and healthy fats to manage your increased energy requirements</p>	 <p>INCREASED PROTEIN</p> <p>Include protein rich food to build and repair cells, tissues and build new red blood cells</p>	 <p>HEALTHY IMMUNITY</p> <p>Include antioxidant and anti-inflammatory rich foods as well as vitamins and immune regulating micro nutrients</p>	 <p>BONE HEALTH</p> <p>Include dairy products and optimise your Vitamin D intake to support bone density and health</p>	 <p>GUT HEALTH</p> <p>Include a variety of fruit, vegetables and wholegrains to promote a healthy gut. Be aware of the risk of opioid related constipation and drug/food interactions</p>
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3. CONSIDER ADDITIONAL NUTRITIONAL FACTORS TO OPTIMISE YOUR HEALTH OUTCOMES

REDUCED APPETITE	LOSING WEIGHT UNINTENTIONALLY	INCREASE IN WEIGHT
<p>Consider,</p> <ul style="list-style-type: none"> • Eat little and often • Eat foods you enjoy • Keep healthy snacks to hand • Have nourishing drinks (eg.milk-based drinks) • Have energy dense foods and snacks 	<p>Consider,</p> <ul style="list-style-type: none"> • Eating regular meals and snacks • Don't skip meals • Choose high nutrient density foods and snacks • Have a bed time snack • Be flexible with your food choices 	<p>Consider,</p> <ul style="list-style-type: none"> • Energy intake and output • Monitor portion sizes • Reduce intake of high fat and sugar snacks • Reduce take away meals, eat from home • Make small manageable changes

For more related resources – www.sicklecellnutritionacademy.com

Reference:

Matthews C. Co-developing a health literacy framework to integrate nutrition into standard care in SCD, Doctoral thesis, 2023. Hyacinth, H.I., Gee, B.E. and Hibbert, J.M., 2010. The role of Nutrition in Sickle Cell Disease. *Nutrition Metabolic Insights*, [pdf] 3, pp. 57-67

