

Sickle Cell Disease (SCD) is a genetically inherited red blood cell disorder affecting nearly 17 500 people in the UK. SCD has both medical and nutritional features with the nutritional features directly linked to the main clinical features of the disorder. However, nutrition is only recently emerging as a management option in SCD care provision. This leaflet aims to provide an overview of the current nutrition landscape in SCD and the changes that are required to improve nutrition service provision.

SICKLE CELL NUTRITION

1. MARGINALISED

Nutrition not recognised as a problem to treat



2. INVISIBLE

Lack of nutrition knowledge and awareness



3. HEALTH INEQUALITY

Affects patients experience, access and outcomes



MAIN CLINICAL FEATURES

CHRONIC HAEMOLYSIS

Rapid breakdown of red blood cells under low oxygen conditions



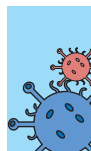
VASO OCCLUSION

Blockage of small and large blood vessels with sickle shaped blood cells



IMPAIRED IMMUNITY

Impaired functioning of the spleen leading to increased risk of infection



MAIN NUTRITIONAL FEATURES

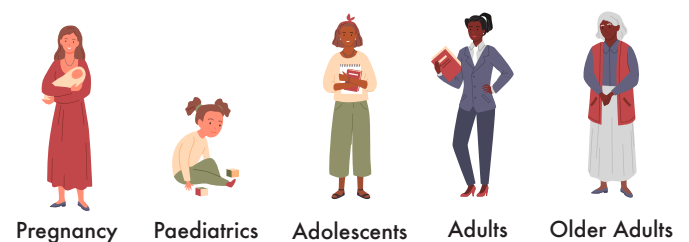
1. High Resting Energy Expenditure
2. High Protein Turnover
3. High Red Blood Cell Turnover
4. Chronic Anaemia and Fatigue
5. Increased Cardiac Demand/Expenditure
6. Increased Oxidative Stress
7. Chronic Inflammation
8. Impaired Immunity

INFLUENCING FACTORS:

SOCIO-ECOLOGICAL FACTORS AFFECTING NUTRITION:



NUTRITION ACROSS THE LIFE CYCLE:



WHAT IS REQUIRED?

1. To **INTEGRATE** nutrition into standard care provision in SCD.

2. To **IMPROVE** the knowledge and care gaps defining the nutrition landscape in SCD.

3. To **DEVELOP** nutrition policy and practice guidance in **SCD** and **FUND** more tailored research on nutritional management in SCD.

PEECE MODEL

PREVENTION

EDUCATION

EMPOWERMENT

CONTEXTUAL FACTORS

ENGAGEMENT