



Diet and Haemochromatosis

“What is food to one man may be fierce poison to others”

Lucretius 95-55 B.C.

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Diet and Haemochromatosis

- * **What role does a dietician play in the management of Haemochromatosis?**
- * **Is an adapted diet necessary when venisection offloads so much iron?**
- * **Foods to limit:**
 - + Foods naturally high in iron
 - + Foods that increase the absorption of iron in food
- * **Foods to focus on:**
 - + Foods that helps to lower the absorption of iron



Diet and Haemochromatosis

What role does a dietician play in the management of Haemochromatosis?

- * **Anthropometric measurements, i.e. BMI**
- * **Clinical assessments, e.g. bronze skin, joint pains, memory loss, diabetes i.e. iron intake, food preferences & dislikes**
- * **Diet history,**
- * **Suggestions how to adapt the current diet to lower iron availability**
- * **Advanced Haemochromatosis:**
 - + Damage to pancreas (Diabetes mellitus)
 - + Damage to liver (Hypercholesterolemia)
 - + Heart damage



Diet and Haemochromatosis

Is an adapted diet a significant treatment for Haemochromatosis?

- * **A typical Western diet contains ~12-15mg of iron, of which only 5-15% is absorbed (0.6-1.8mg)**
- * **In the case of one venisection, 200-250mg of iron is removed**
- * **Diet is thus *not* the main treatment for haemochromatosis, since diet alone cannot control iron overload**



Diet and Haemochromatosis

*** Dietary adaptations can however help to speed up the de-ironing process, and lengthen the periods between therapeutic phlebotomies**

+ Study in British Journal of Nutrition (2000) showed that a low iron diet results in significantly lower levels of S-Fe and transferrin saturation

*** BUT: Not necessary to become fanatic about label reading or going to extremes with your diet**

Diet and Haemochromatosis



Which foods should be limited?

* Foods with a high bioavailability of iron

+ Haem iron

- ◆ Organ meats, especially liver
- ◆ Red meat
- ◆ Poultry (esp dark colored meat (eg ostrich & turkey))
- ◆ Fish

***Limit to 4-5 times a week, & only once a day with main meal
PORTION control!***

Always combine with food that lowers iron absorption



Diet and Haemochromatosis

Which foods should be limited?

* Foods with a lower bioavailability of iron

+ Non-Haem iron

- ◆ Legumes
- ◆ Dried fruit (e.g. raisins)
- ◆ Fortified foods (e.g. cereals and drinks)

Consuming sources of haem- and non-haem iron together enhances iron absorption

Always combine with food that lower the absorption



Diet and Haemochromatosis

Which foods should be limited?

* **Raw fish and shell fish (especially oysters)**

- + Individuals with haemochromatosis are susceptible to infections by harmful micro-organisms in these foods

* **Factors that increase the absorption of iron**

- + Vitamin C (tomato, citrus fruits, Vitamin C supplements)
 - ◆ Only take these items between meals (do not exclude from the diet)
- + Alcohol
- + Smoking



Diet and Haemochromatosis

Which foods should be focused on?

* Foods that lower the absorption of iron

- + Calcium
- + Polyphenols (tannins in tea)
- + Whole grain products
- + Oxylates (found in leafy vegetables, berries and nuts)
- + Phosphates (found in milk, nuts and grains)

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How do I put all this information together?

- * Have haem-iron sources 3-4 times/week, with only one meal of the day
- * Check your portion size!
- * Never combine haem- and non-haem iron sources in a meal
- * Have a cup of milk, yoghurt or tea with main meals
- * Choose whole grain products rather than refined products
- * Eat citrus fruits or dried fruit as snacks and not as part of main meals
- * Only drink Vitamin C supplements 2 hours after a meal
- * Avoid alcohol, especially if there is an indication of liver damage

