

Exklusiv enteral nutritionsbehandling

Varför?

Vad använda?

Till vem?

Hur göra?

Exklusiv enteral nutritionsbehandling

”Tillförsel av en komplett nutritionslösning (oralt eller via nasogastrisk sond) samtidigt som allt annat intag av föda avbrytes”

Vårdprogram IBD, BLF`s gastrosektion ver 2.0 (2007-10-10), <http://www.blf.net>

Varför EEN?



- Steroider mer effektivt än EEN

Zachos M, et.al. Enteral nutritional therapy for induction of remission in Crohn´s disease. *Cochrane Database Syst Rev* 2007; 1.

- EEN bra första behandlingsalternativ till barn med Crohn

Lochs H, et.al. ESPEN guidelines on enteral nutrition: gastroenterology. *Clin Nutr* 2006; 25:260-274.

Heuschkel RB, et.al. Enteral nutrition and corticosteroids in the treatment of acute Crohn´s disease in children. *J Pediatr Gastroentero Nutr* 2000; 31:8-15.

Varför EEN?

- Slemhinne­läkning

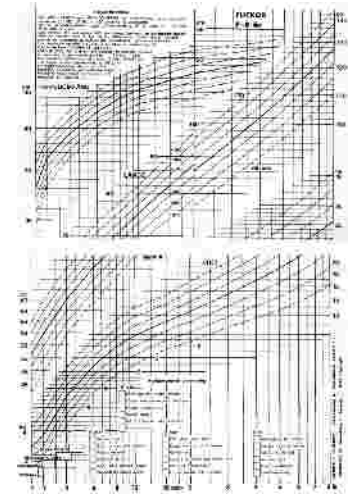
Borrelli O, et.al. Polymeric diet alone versus corticosteroids in the treatment of active pediatric Crohn's disease: a randomised controlled open-label trial. *Clin Gastroenterol Hepatol* 2006; 4:744-53.

Yamamoto T, et.al. Impact of elemental diet on mucosal inflammation in patients with active Crohn's disease: cytokine production and endoscopic and histological findings. *Inflamm Bowel Dis* 2005; 11:580-8.

Fell JM, et.al. Mucosal healing and a fall in mucosal pro-inflammatory cytokine mRNA induced by a specific oral polymeric diet in paediatric Crohn's disease. *Aliment Pharmacol Ther* 2000;14:281-9.



Varför EEN?



- Nutritionell positiv effekt

Lochs H, et.al. ESPEN guidelines on enteral nutrition: gastroenterology. *Clin Nutr* 2006; 25:260-274.

Berni R, et.al. Short- and long-term therapeutic efficacy of nutritional therapy and corticosteroids in paediatric Crohn´s disease. *Dig Liver Dis* 2006; 38: 381-7.

Bannerjee K, et.al. Anti-inflammatory and growth-stimulating effects precede nutritional restitution during enteral feeding in Crohn´s disease. *J Pediatr Gastroentero Nutr* 2004; 38:270-75.

Teahon K, et.al. Alterations in nutritional status and disease activity during treatment of Crohn´s disease with elemental diet. *Scand J Gastroenterol* 1995; 30:54-60.

Varför EEN?

- Förbättrad livskvalitet

Afzal NA, et.al. Improvement in quality of life of children with acute Crohn´s disease does not parallel mucosal healing after treatment with exclusive enteral nutrition. *Aliment Pharmacol Ther* 2004; 20:167-172.

- Kortisonsparande behandling

Berni R, et.al. Short- and long-term therapeutic efficacy of nutritional therapy and corticosteroids in paediatric Crohn´s disease. *Dig Liver Dis* 2006; 38: 381-7.

Knight C, et.al. Long-term outcome of nutritional therapy in paediatric Crohn´s disease. *Clin Nutr* 2005; 24: 775-9.

Varför EEN?

- Remissionstal 53-80 %
- Slemhinne­läkning
- Tillväxt och nutritionsstatus
- Livskvalitet

Moorthy D, et.al, Nutrition and Crohn´s disease an update of print and web-based guidance. *Nutrition reviews* 2008; 66(7):387-397.

Zachos M, et.al. Enteral nutritional therapy for induction of remission in Crohn´s disease. *Cochrane Database Syst Rev* 2007; 1.

Till vem?

- Vid Crohn men ej vid Ulcerös kolit

Lochs H, et.al. ESPEN guidelines on enteral nutrition: gastroenterology. *Clin Nutr* 2006; 25:260-274.

- Bra behandling till barn

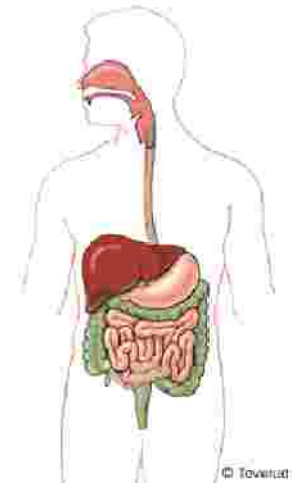
Zachos M, et.al. Enteral nutritional therapy for induction of remission in Crohn's disease. *Cochrane Database Syst Rev* 2007; 1.

Lochs H, et.al. ESPEN guidelines on enteral nutrition: gastroenterology. *Clin Nutr* 2006; 25:260-274.

- Vid nydiagnosticerad Crohn. Vid återfall?

Day AS, et.al. Systematic review: nutritional therapy in paediatric Crohn's disease. *Aliment Pharmacol Ther* 2008; 27:293-307.

Till vem?



- Påverkar lokalisation av sjukdom svar på EEN?

Zachos M, et.al. Enteral nutritional therapy for induction of remission in Crohn's disease. *Cochrane Database Syst Rev* 2007; 1.

- Ingen skillnad i svar vid ilealsjukdom eller colonsjukdom

Day AS, et.al. Exclusive enteral feeding as primary therapy for Crohn's disease in Australian children and adolescents: a feasible and effective approach. *J Gastroenterol Hepatol* 2006; 21:1609-14.

Borrelli O, et.al. Polymeric diet alone versus corticosteroids in the treatment of active pediatric Crohn's disease: a randomised controlled open-label trial. *Clin Gastroenterol Hepatol* 2006; 4:744-53.

Fell JM, et.al. Mucosal healing and a fall in mucosal pro-inflammatory cytokine mRNA induced by a specific oral polymeric diet in paediatric Crohn's disease. *Aliment Pharmacol Ther* 2000;14:281-9.

- Skillnad i svar vid ilealsjukdom eller colonsjukdom

Knight C, et.al. Long-term outcome of nutritional therapy in paediatric Crohn's disease. *Clin Nutr* 2005;24:775-9.

Afzal NA, et.al. Colonic Crohn's disease in children does not respond well to treatment with enteral nutrition if the ileum is not involved. *Dig Dis Sci* 2005; 50:1471-5.



Vad använda?

- Elemental, semielemental eller polymerisk
- Polymerisk eller glutaminberikad polymerisk
- Fettlåg eller fettrik
- Mycket fettlåg eller fettrik
- LCT-låg eller LCT-rik



Nutrison Standard



Zachos M, et.al. Enteral nutritional therapy for induction of remission in Crohn's disease. *Cochrane Database Syst Rev* 2007; 1.

Hur göra?

- Upptrappning av behandling?

Afzal NA, et.al. Refeeding syndrome with enteral nutrition in children: a case report, literature review and clinical guidelines. *Clin Nutr* 2002; 21(6):515-20.

Hernando A, et.al. Refeeding syndrome in a patient with Crohn´s disease. *J Clin Gastroenterol* 2008; 42(4):430-1.

Borrelli O, et.al. Polymeric diet alone versus corticosteroids in the treatment of active pediatric Crohn´s disease: a randomised controlled open-label trial. *Clin Gastroenterol Hepatol* 2006; 4:744-53.

- 8 veckors behandling?

Day AS, et.al. Exclusive enteral feeding as primary therapy for Crohn's disease in Australian children and adolescents: a feasible and effective approach. *J Gastroenterol Hepatol* 2006; 21:1609-14.

Hur göra?



- Exklusiv EEN?

Johnson T, et.al. Treatment of active Crohn´s disease in children using partial enteral nutrition with liquid formula: a randomised controlled trial. *Gut* 2006; 55:356-61.

Day AS, et.al. Systematic review: nutritional therapy in paediatric Crohn´s disease. *Aliment Pharmacol Ther* 2008; 27:293-307.



Hur göra?

- Energinivå?

Gavin J, et.al. Energy intakes of children with Crohn´s disease treated with enteral nutrition as primary therapy. *J Hum Nutr Diet* 2005 18; 337-42.

Azcue M, et.al. Energy expenditure and body composition in children with Crohn´s disease: effect of enteral nutrition and treatment with prednisolone. *Gut* 1997;41:203-8.

Hur göra?



- Återinförel av mat efter EEN

Riordan AM, et.al. Treatment of active Crohn´s disease by exclusion diet: East Anglian multicenter controlled trial. *Lancet*. 1993; 342:1131-4.

Pearson M, et.al. Food intolerance and Crohn´s disease. *Gut*. 1993; 34:783-7.

Knight C, et.al. Long-term outcome of nutritional therapy in paediatric Crohn´s disease. *Clin Nutr* 2005; 24: 775-9.

Shaw V, et.al. *Clinical Paediatric dietetics*, 3rd edition, 2007.

Hur göra?

- **Nutritionsstöd för bibehålla remission efter avslut EEN?**

Akobeng AK, et.al. Enteral nutrition for maintenance of remission in Crohn's disease. *Cochrane Database Syst Rev* 2007; 3.

Takagi S, et.al. Effectiveness of an "half elemental diet" as maintenance therapy for Crohn´s disease: a randomised controlled trial. *Aliment Pharmacol Ther* 2006; 24:1333-40.

Verma S, et.al. Does adjuvant nutritional support diminish steroid dependency in Crohn´s disease? *Scand J Gastroenterol* 2001; 36:383-8.