

# Nutritional support

Nutritional support is a set of active measures to maintain an adequate intake of energy, nutrients, trace elements and vitamins .

## Algorithm for administration of nutritional support

1. With good GIT function , enteral nutrition is given (sipping, nasogastric or nasojejunal tubes) ;
  - if enteral nutrition is required for longer than 4-6 weeks, nutrition is introduced into the stoma (PEG) in bolus, intermittent or continuous form.
2. In case of poor GIT function, parenteral nutrition (total, supplementary) is given;
  - short-term (up to 10 days) – peripheral application;
  - long-term (over 10 days) – by central catheter.
3. Methods of administration:
  - all-in-one;
  - multiple bottles.
4. Components of enteral nutrition:
  - carbohydrates - the basis is glucose (150 g/day);
  - fat emulsions – 1-2 g/kg/day;
  - essential AMC – Val, Leu, Ile, Phe, Try, Lys, Met, Thr.
5. Contraindications of enteral nutrition:
  - sudden abdominal events (ileus conditions), toxic megacolon, severe abdominal infections, bleeding into the GIT;
  - when applying fat emulsions there is a risk of hyperlipoproteinemia , fat embolism , shock , sepsis, DIC.

## Dietetics

Diet therapy means adjusting the diet in order to influence the disease process, the so-called sparing diet:

- mechanical examination – must not increase tone or peristalsis;
- chemical investigation – its composition must not irritate the mucous membrane and increase secretion;
- thermal protection - must not irritate the digestive tract thermally.

### Classification of diets

1. strict sparing diet – in an acute state, incomplete;
2. basic sparing diet – full of energy and biological value, served long-term;
3. sparing diet:
  - special - tea, liquid nutritional, with strict fat restriction, diabetic;
  - basic – liquid, mushy, sparing, with fat restriction, no residue;
  - standardized – for pancreatitis, lactose intolerance, gluten, liver insufficiency.

### Dietary fiber

- A polysaccharide that has almost no nutritional value.
- Intake should be 25-30 g per day (intake above 50 g may cause intestinal obstruction).
- Diet with fiber content is indicated for all people who do not need to spare the digestive tract, it has a preventive effect against constipation, hemorrhoids, diverticulosis.
- Soft (soluble) fiber - fruits, vegetables, nuts, legumes - hemicellulose, agar, pectins, mucus - absorbs excess water from the intestines, swells, binds toxic substances, increases the volume of stool and softens it.
- Coarse (insoluble) fiber - cereals, woody plants - cellulose, lignin - increases the volume of intestinal contents, adjusts peristalsis, acts against constipation.

## Parenteral nutrition

 For more information see Parental nutrition (Paediatrics).

## Links

### Related articles

- Parenteral Nutrition (Paediatrics)
- Biochemical evaluation of nutrition
- Assessment of nutritional status
- Nutrition recommendations

## Sources

- PASTOR, Jan. *Langenbeck's medical web page* [online]. ©2006. [cit. 14.11.2010]. <<http://langenbeck.webs.com/interna.htm>>.

ws: Nutriční podpora (<https://www.wikiskripta.eu/index.php?curid=15667>)