Treatment of caries in the stage of focal demineralisation of enamel involves the elimination of the cariogenic situation - compliance with an anti-carious diet (exclusion of digestible carbohydrates), maintenance of individual oral hygiene, remineralisation of the affected area of enamel.

Remineralising therapy is a complex of measures for creating conditions for the complete formation and mineralisation of dental hard tissue in order to prevent or eliminate the cariogenic situation.

The principle of caries remineralisation therapy is to replace the mineral elements lost to the enamel during the preceding period of partial caries demineralisation. As calcium and phosphorus are the main components of tooth enamel, they also form the basis of mineral (remineralising) solutions. Mineral element ions that have penetrated into the enamel are sorbed on the organic matrix, forming an amorphous crystalline substance, or replacing the free spaces in the unbroken crystals of the enamel apatite.

Remineralisation therapy is used for prophylactic and therapeutic purposes. therapeutic purposes.

Indications:

- Caries

- Before and after bleaching

- Professional hygiene, if indicated

- Orthodontic appliances, if indicated

- When indicated for pregnancy

Contraindications:

- Individual intolerance to the components of the product

Classification of agents used for remineralising therapy.

Remineralising therapy:

1. general:

А. Calcium and fluoride preparations:

- "Calcinova".

- "Calcium-Sandoz Forte".

- Sodium fluoride

- "Vitafluor".

2. Topical:

А. Applied gels and creams:

- 10% calcium gluconate solution (Borovsky-Leus technique)

- "Remodent".

- Calcium gel (AmazingWhiteMinerals)

- GCToothMousse

- RemarsGel

- R.O.C.S. Medical Minerals

- Calcium glycerophosphate + electrophoresis

Б. Calcium-containing toothpastes:

- Splat Biocalcium

- President Unique

- New Pearl Calcium

Calcium and phosphorus preparations.

Combination preparations contain a complex of vitamins and minerals, which are important factors in metabolic processes.

Calcium is involved in bone formation, blood clotting, transmission of nerve impulses, contraction of skeletal and smooth muscles, and normal heart function.

Phosphorus, along with calcium, is involved in the formation of bones and teeth, and is also involved in energy metabolism processes.

For proper mineralization of bones and teeth it is necessary to consume vitamins, especially vitamin D3 (cholecalciferol), which promotes absorption of calcium and phosphorus in digestive organs and their proper distribution in bones and dental tissues, besides calcium and phosphorus, which are the building material.

Vitamin A (retinol) participates in the synthesis of various substances (proteins, lipids, mucopolysaccharides) and ensures normal function of skin, mucous membranes, and eyesight.

Vitamin B6 (pyridoxine) contributes to the maintenance of structure and function of bones, teeth, gums, influences erythropoiesis, contributes to normal functioning of the nervous system.

Vitamin C (ascorbic acid) is involved in the oxidation of a number of biologically active substances, the regulation of metabolism in connective tissue, carbohydrate metabolism, blood coagulation and tissue regeneration, stimulates the formation of steroid hormones, normalizes capillary permeability. Vitamin C increases resistance to infections, reduces inflammatory reactions.

Indications for use:

Recommended for children:

- During intensive growth and development;

- With intolerance to milk and dairy products;

- To strengthen and protect bones and teeth.

Contraindications to use:

- Hypervitaminosis;

- Hypercalciuria;

- Hypercalcemia;

- Severe renal insufficiency (CKR less than 30 ml/min);

- Childhood age less than 3 years;

- Hypersensitivity to the drug components.

Caution should be exercised when using the drug in diabetes mellitus.

**Borovsky-Leus technique** (10% calcium gluconate solution)

The technique will require:

10% calcium gluconate solution and 2-4% aqueous sodium fluoride solution.

Method of application:

1. The tooth is cleaned of plaque, isolated from saliva, dried.

2. A cotton pad is applied to the tooth surface, pre-moistened with 10% calcium gluconate solution.

The application lasts 20 min, changing the cotton pad every 5 min.

3. 2-4% sodium fluoride solution is applied to the cotton pad and applied for 5 min.

Course:

15-20 treatments are carried out, every day or every other day.

The course is repeated after 6 months.

Recommendations:

Refrain from eating for 2 hours.

Not currently in use.

**GC Tooth Mousse**

Ingredients: Recaldent™\* CPP-ACP (CaseinPhosphopeptide - Amorphous Calcium Phosphate adsorbed on milk phosphoprotein).

Pharmacological.action:

In the oral environment, CRP-ACP binds firmly to biofilm, plaque, bacteria, hydroxyapatite and soft tissues, delivering bioavailable calcium and phosphorus.

Indications:

Tooth Mousse can be administered to young children from 1 year of age, suitable for use in diabetes, radiation sickness, pregnancy and breastfeeding are not contraindications to the use of Tooth Mousse.

How.to.use:

1. Apply GC Tooth Mousse to the tooth surface using an applicator or soft brush to fill interproximal areas. The application should be carried out within 15 minutes. Or use GCTooth Mousse with a mouth guard and apply for 15 min.

2. Advise patient not to swallow or spit during

Do not swallow or spit out during application.

Gently rinse the patient's mouth. 3.

Course of treatment: 1.5 - 2 months, twice a year.

**"R.O.C.S. Medical Minerals**

Ingredients:

Minerals, the gel formula is patented.

Pharmacological action:

Thanks to special additives it forms a stable, invisible film on the teeth, ensuring gradual penetration of minerals into dental tissues.

Indications for use:

-Prevent and treat caries in the white stain stage;

- Delays tissue loss in non-carious lesions (erosions, increased tooth decay);

- Improves the appearance of teeth affected by fluorosis;

- Relieves hypersensitivity;

- Remineralizes white spots;

- Positive effect on the composition of the microflora of plaque, effective with dysbacteriosis

How to use:

After brushing, apply gel to teeth with a toothbrush and refrain from eating and drinking for 30 minutes. It is possible to use the gel in a mouth guard.

Course:

Two weeks. One to three courses per year. It is possible to use the gel permanently, as it is harmless and has no side effects.