

## ENVIRONMENTAL IMPACT ON DENTAL HEALTH

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### Abstract

*In the animal world, the most important function of the cavity is grabbing food and fragmentation, ie. masticator function. Also, the mouth served as a weapon of attack and defense, according to the hominids discovered. In addition, they have improved tasting, mimics and speech. Relating with the type of food, between the masticator function and dental arch development, from mouth architecture and jaw shape, number and position of teeth there is a close interdependence. In anthropoids, the jaws are much more developed in humans, and the mandible (at lower incisors) is flattened because of the strong action of the diastric muscle; the anthropoid chin.*

**Key words:** climatic changes, dental health, homeopathic remedies

### INTRODUCTION

Climatic variations made their imprint on the characteristics of the dento-maxillary aspect. The first man lived in a hot and humid climate. Their food consisted mainly of fibrous foods as roots, stems, bark, and different vegetable. Teeth were used to break the vegetables, as well as their grinding, so we have found large grinding surfaces through abrasion of teeth with occlusal relationships labiodont type.

In the Ice Age, the climate was considerably cold; people have adapted to a new kind of life, discovered the fire, took refuge into caves and covered their bodies with animal skins. They began to use their hands and preparing food for fragmentation. (Bratu D.). The way of eating has changed because of loss of tropical vegetation and the introduction of the game. Dento-maxillary apparatus had undergone changes, becoming psalidodonte occlusal relationships, like the current carnivores.

When climate became temperate man's lifestyle has undergone further transformation. He got a great skill and hands, build their tools and began to practice agriculture. Food had become mixed, consuming food cooked, soft and refined. New devices were requested so dental jaw dropped in intensity and maximum stress was located at the lower first molar (Dumitru Ht. et al.). Thus, the second molars and tertiary decreased in volume and tends to the third molar extinction.

With civilization, there were anomalies becoming more common, both in terms of number and shape of teeth, and diseases of hard dental structures and the support (gums, ligaments, bones, and jaws).

And which is the impact of the environment on oral health? It is an indirect one, but with remarkable influence exercised by the characteristics of the substances used in oral treatment, and therefore by us (Lajosi P. et al.)

## **MATERIALS AND METHODS**

It was found that the specialized treatments for such diseases of the supporting structures of teeth (especially chronic marginal periodontal disease), an increasing place is occupied by important natural alternative therapies, with herbal extracts or homeopathic form of mouthwashes, gum brushings and even toothpastes. But to obtain effective remedies is imperative that harvested plants be healthy and clean.

Firms producing homeopathic remedies or herbal extracts used in dentistry have specialized laboratories using plants grown in unpolluted area, surrounded by nature. The Dental Clinic of the Faculty of Medicine and Pharmacy Oradea, alternative periodontal therapy was used successfully (over 10 years) and in particular domestic products, an example being that of PlantExtrakt Laboratories, established in 1992 as a joint venture Romanian - German located in Radaia, 14 km away from Cluj-Napoca. Basic feature is the manufacture of products PlantExtrakt plant extracts (tinctures parent macerated glycerol) of fresh herbs. By giving up the drying process and the immediate processing of fresh plants are kept unaltered phytocomplex product that gives the healing power of phytotherapy. Plant extracts used in manufacturing plants are from spontaneous flora (especially the Apuseni Mountains), or import of organic crops from specialized companies in Germany. Harvesting areas of spontaneous and organic growing areas are checked by analyzing the soil, the mandatory requirement being that the lack of environmental pollution. Checking the content as heavy metals, pesticides and radioactive soil load, which might be transmitted to man through phytoterapeutic extract thus, can influence health.

## **RESULTS AND DISCUSSIONS**

Patients with homeopathic treatment for general illnesses were guided to our clinic or came from their initiative. In their case, and strictly for chronic marginal periodontal disease, we have successfully recommended oral hygiene with some alternative products (Parvu et al.) such as:

- toothpaste with extract of Echinacea without menthol (eg. Ethera) or tooth powder without menthol (eg. Dentomin - zeolite-based product which acts gently abrasive mechanical processes and physico-chemical adsorption and ion exchange with a complex cleaning and descaling)

- without menthol mouthwash (eg. Mira).

*Mira Mouthwash* (PlantExtrakt) contains oleogumirezina Myrrha vera extract in 85% grain alcohol. It is the form of 20 ml bottles. Pharmacological action is: disinfectant, deodorant, anti-inflammatory, stimulates the formation of granulation tissue. Therapeutic indications: oral hygiene, oral cavity inflammatory conditions (gingivitis, stomatitis, chronic marginal periodontitis), pressure pain caused by dentures. For oral hygiene are diluted 15-20 drops to a glass of water - to gargle. For inflammation of the mouth, are diluted 10 drops with a teaspoon of water and rinse vigorously for 30 seconds focusing on affected areas. In inflammatory states of the mouth (stomatitis, gingivitis, thrush, etc.), pressure or pain caused by dentures and we have recommended a combined treatment of mouthwash with gum brushing (eg. Mira with Plantagingival - PlantExtrakt).

*Plantagingival* gum brushing solution (PlantExtrakt) contains: herbal extracts of marigold (*Calendula officinalis*), rhubarb (*Rheum palmatum*), comfrey (*Symphytum officinale*) - ancient herbs well knew for their healing and regenerating actions, in pharmaceutical glycerin solution. Presentation is 20 ml bottles with an intraoral brush stopper for easy application. Pharmacological action: antiseptic, analgesic, anti-inflammatory and healing. Effects of triterpenoid and flavanols are due to saponozides of *Calendula officinalis* (marigold) with antiseptic and anti-inflammatory effects, and tannins hidroxi-antrachinones gaelic and catechesis of *Rheum palmatum* (rhubarb) with anti-inflammatory and astringent effects. One of the components of tannins (galoildihidrocinaoilglucosis) has analgesic and anti-inflammatory action comparable to phenylbutazone and acetylsalicylic acid. The main component of *Symphytum officinale* (comfrey) is allantoin, a highly experienced healing. Directions: 2-3 times per day affected area is painted with the brush included in the cap, and then washes the brush with hot water bottle prior occasions.

Manufacturing technology is to ensure the preservation of plant extracts active principles which contribute to their therapeutic action.

## CONCLUSIONS

Global warming over the next half-century could put more than a million species of plants and animals on the road to extinction. According to

an international study published in the science journal *Nature*, emissions from cars and factories could push temperatures up to levels not seen for 1 million to 30 million years by the end of the century, threatening many habitats. The sweeping new analysis, enlisting scientists from 14 laboratories around the globe, found that more than one-third of 1,103 native species they studied in six regions around the world could vanish or plunge to near extinction by 2050 as climate change turns plains into deserts or alters forests. Our flora (including Apuseni Mountains) is subject to severe pollution too. There are no longer many spaces with clean soils, air, water and resulting pure herbs and flowers. As we said before, to have and maintain a healthy body is necessarily to have a healthy planet.

Global warming is widely blamed on rising concentrations of carbon dioxide in the atmosphere linked to emissions of gases from burning fossil fuels in cars, factories and power plants. We can cut global warming pollution by reducing pollution from vehicles and power plants. We can increase our reliance on renewable energy sources such as wind, sun and geothermal. And we can manufacture more efficient appliances and conserve energy. But all this will take time. Right away, we should put existing technologies for building cleaner cars and more modern electricity generators into widespread use, and so our “seeds” of future will blossom.

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