

the field of dental FRC materials have been able to resolve many of the aforementioned questions. These aspects with clinical examples will be demonstrated in the lecture.

## 6.

### When and How Shall I Plan Dental and Prosthetic Treatment for the Elderly?

**Arvidson-Fyrberg K.**

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The planning of dental and prosthetic treatment for the elderly requires knowledge of the patient's oral and general health status as well as social orientation. As for most people, loss of teeth is associated with reduced quality of life. Thus, it must be of primary importance to prevent oral diseases leading to edentulism. However, due to medical, economic and social reasons, a conventional approach may not always be optimal.

Scientific investigations and clinical experience confirm that treatment with implant-supported prosthesis is equally successful among the old as among younger patients. Good esthetics, chewing comfort and a minimum of future problems can be obtained by a treatment strategy based on timely intervention with implant-supported prosthesis.

## 7.

### Gerodontology - Status and New Challenges

**Holm-Pedersen P.**

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Changing demographics, which include a dramatic increase in the number of old and very old individuals have great implications for the health care professions. Further, the rates of edentulousness and tooth loss are rapidly declining. Consequently, the number of teeth at risk of developing unfavorable oral diseases is growing. As patients live longer with significant chronic systemic disease, and as more older people seek dental care, practitioners will increasingly encounter medically and func-

tionally compromised individuals. Many recent studies have shown that systemic diseases, their treatments, and functional impairments have an impact on oral health and function and consequently on the quality of life of an older person. However, the interplay between general health and oral health is a two-way relationship. Oral infections, in particular periodontal disease, give rise to pathogens, which can become blood born or aspirated into the lungs, and which may cause serious, even life-threatening consequences. An understanding of the interplay between general and oral health is imperative, if oral health care is to have a reasonable chance of success. One of the major challenges facing the dental profession today is maintaining oral health and function into the oldest-old years, especially in those elderly, who do not age successfully. Age alone, however, should have no influence on the decision to treat or not to treat.

## 8.

### The Role of Prosthetic Dentistry in Mass Disaster Identification

**Vermeylen Y.**

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Dentistry plays a very important role in the identification of the victims in mass disasters. More than 50% of the identification work is concluded by dental means and investigation. Prosthetic work, and especially full rehabilitations with dental implants, crowns and bridges, is very valuable for dental identification.

The biggest problems, however, are full upper and lower dentures. Marking of dentures would be a very valuable aid in identification procedures and very easy to do at a low cost. The legal aspects of identification will be explained, as well as the role of the forensic odontologist in the identification team.

## 9.

### The Significance of Prosthodontic Appliances in Identification of Human Remains in Croatia

**Brkić H.**

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This paper reports the results of dental identification of 1200 human remains exhumed from mass graves in Croatia up to 2000. A total of 989 (82%) victims were positively identified, while 211 (18%) victims remained unidentified. Dental identification based on available dental ante mortem data was achieved in 25% of the cases. Dental identification based on dental charts was achieved in 35%, on x-rays in 15%, on photographs of teeth in 22%, on interviews in 18%, and on dental supports in 10% of the cases. Teeth, in combination with anthropological parameters - age, sex and height as well as with other specific characteristics such as tattoos, personal identification cards, clothes, jewelry and DNA - were helpful for identification of 64% of victims, but their significance for the identification was not dominant. Only in 11% of the cases identification was achieved by other relevant means of identification and teeth were not used at all. Dental findings that were the most significant for the identifications were prosthetic appliances in 30% of cases. Dentures were helpful in the identification of only 1% of the cases, while crowns and bridges were helpful in 29% of the cases. Non marked full dentures caused problems in the determination of identification.

## 10. Effectiveness of Sports Mouthguards

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Medicine, Cardiff, UK*

Participants in a wide variety of sports commonly experience orofacial injuries. Dentists have a responsibility for both the treatment and prevention of these injuries.

Equipment for the protection of the face and mouth includes facemasks and mouthguards.

There are three broad categories of mouthguards:

- Type 1 (Stock) mouthguards are purchased over the counter at sports shops;
- Type 2 (Mouth-formed) mouthguards are purchased in the same way but are modified in the mouth to improve fit;
- Type 3 (Custom-made) mouthguards are made in the laboratory on casts made from impressions of the mouth.

Evidence suggests that mouthguards can help prevent damage to soft tissues and teeth and possibly prevent concussion. Custom-made mouthguards are the most

retentive and are best tolerated. Incidents have been recorded when ill-fitting mouthguards have been dislodged and blocked the airway

Many claims have been made regarding the relative effectiveness of different types of mouthguards. The evidence for the relative effectiveness of different mouthguard materials and designs will be described. The available data from *in-vitro* and *in-vivo* investigations must be interpreted with caution

There is a need for further scientific research to develop optimum protection for participants in sports.

## 11. Clinical and Laboratory Techniques for the Custom-Fabrication of Athletic Mouthguards

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The efficacy of mouthguards for preventing sports-related traumatic oral injuries is well documented in those sports that mandate their use. There are three general categories of athletic mouthguards that currently are available. These include stock, mouth-formed and custom fabricated mouthguards made over a dental cast. Most mouthguards in each of these categories are made from ethylene vinyl acetate (EVA) material. Fabrication and design require professional services for impression taking and laboratory processing. Custom-fabricated mouthguards are, therefore, the most retentive. This presentation is designed to describe, in detail, clinical and laboratory procedures that are used to fabricate custom athletic mouthguards and will include the vacuum-forming technique and the heat-pressure-lamination technique. Information on a new vacuum-pressure-lamination technique will be described as well as an experimental technique that utilizes photopolymerized urethane diacrylate. Several research topics for future investigation will be identified.

## 12. Denture Repairs: Surveys, Methods and Trends

**Polyzois G.**

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