

Sustainability

Health and quality of life are our business. This is why we also address health issues above and beyond the field of dentistry. A health economics study supported by Straumann shows that dental implant treatments are making a clear contribution to the sustainable development of healthcare. In the area of environmental sustainability, we obtained ISO 14001 certification.

Socio-economic advantages of dental implant treatment

Demographic and social developments play an important role in the medical technology sector. The population is growing older, and older people have higher expectations with regard to mobility and participation in society. In turn, this leads to a rise in demand for innovative, effective and economical medical products.

A long-term study into the effectiveness and cost-efficiency of methods for treating the edentulous population is being performed at McGill University in Montreal, Canada. Led by Dr. Jocelyne Feine, it has the financial backing of Straumann, the ITI, and the Canadian Institutes of Health Research, a governmental organization. The project is researching the socio-economic and health effects of edentulism, and comparing the efficiency of treating edentulous patients using conventional full prostheses and implant-supported prostheses (see page 41).

The results of the study show that the cost/treatment quality ratio is clearly better in the case of dental implants, when using a minimal solution of two implants in the lower jaw. The findings have been made available to specialists in a variety of publications and presentations. Dr. Feine's team is planning an information campaign to make the advantages of implant-supported prostheses more accessible to patients. The study will be continued over the next ten years to determine whether implant treatment can help improve the general health of edentulous patients, and thus reduce the cost of healthcare. These scientifically founded results demonstrate that economic sustainability is an integral part of Straumann's business.

Code of Business Conduct

In keeping with the aim of sustainable healthcare, Fasmed (the Federation of Swiss Medical Devices Trade and Industry Associations) adopted a Code of Business Conduct in 2003. Straumann has committed to implementing this Code. The aim is to guarantee high-quality, innovative medical treatment that is financed in a socially acceptable manner. Cooperation between manufacturers and their partners from research and academia, clinics, and doctor's practices – i. e. everyone involved in healthcare – should be transparent and comprehensible and should primarily serve to ensure the optimal medical treatment of the individual patient.

Integrated Management System – IMS

With a view to sustainable management, Straumann redesigned its existing quality management system in the year under review into a process-driven, integrated management system, covering all requirements in the field of medical products. This aims to ensure not only that we provide a good level of service for our external customers in all areas of the Company; we also want to support our employees in their daily work by continuously improving workflows.

The statutory requirements are reviewed as part of the annual certification audits. Straumann was re-certified by TÜV in December 2003 according to ISO 9001, which was revised for the new process-oriented environment (2000 version), and ISO 13485: 2003.

The IMS gives Straumann an efficient, state-of-the-art management system for quality, environment, health, and safety. The Company employs this tool to identify and minimize business risks consistently. Straumann can also use it to simplify and speed up approval procedures for medical products by generally increasing acceptance with authorities and institutions. The principles of our quality policy and information on certification can be downloaded from our homepage at www.straumann.com.

Systematic improvements in ecological issues

For a long time, Straumann has actively sought out and implemented opportunities for optimizing environmental protection. Our commitment is to take the most environmentally-friendly materials and methods into account when selecting resources and manufacturing processes. To give just one example: in March 2003 we bought a press for our production facility that transforms scrap metal into briquettes and simultaneously squeezes out any oil residues. This allowed us to reduce the volume, and hence the amount of waste disposal by around 80%. Straumann is also systematically applying the principle of "minimum resources, maximum quality" in the construction of the Jacob-Burckhardt building, the Company's new headquarters. For example, the building's state-of-the-art ecological construction method allows the rooms to be ventilated naturally, without an air conditioning system.



Straumann Running Team



Paint a Smile

ISO 14001 certification process completed

In the year under review, Straumann added a new environmental management system in accordance with ISO 14001 to its Waldenburg headquarters and its production facility in Villeret as part of its integrated management system. The new system was successfully certified in December 2003 and shows how Straumann intends to take responsibility for the environment as well as health and safety along its entire value chain. Manuals, procedure instructions, and safety information have been published on the intranet, and can be accessed at any time by all staff. We are well aware that successful environmentally-conscious management ultimately depends on the behavior of every individual employee, which is why we use regular employee information bulletins to increase awareness and provide training for our staff. Straumann's goal is to continue leveraging the opportunities for ecologically sustainable operations in the future. The Company's environmental report and environmental policy guidelines can be downloaded from the Internet at www.straumann.com.

Social commitment in health and sports

At Straumann, general wellbeing and good health is a topic addressed also outside the field of implant dentistry. Since the start of 2003, Straumann has been the main sponsor of the Straumann Running Team, which has been successful both nationally and internationally. By doing this, we aim to encourage health awareness and physical exercise among our employees, not just top athletes. Exercise is a good way of compensating for a sedentary work in the office and can contribute to the quality of life. Our employees' informal running groups are very popular – a sure sign that our sponsoring can make a difference on a small scale, too.

Straumann's products are designed to increase adult patients' quality of life and let them smile again. The same idea is behind the "Paint a Smile®" foundation in Geneva (www.paintasmile.com). The artists from Paint a Smile cover the walls of children's wards with imaginative and amusing paintings, hoping to lighten the sometimes scary hospital atmosphere and to take the children's minds off their pain with caricatures and stories. The idea is to make children feel better even in the unfamiliar situation of a hospital stay. As part of this sponsorship project, Straumann enabled six Smile Painters to brighten up the facilities at the University Hospital for Children in Basel with their paintings. We are sure that, as a result, we have been able to make the children laugh again every now and then.

Implant Rehabilitation of Edentulous Populations

There are hundreds of millions of people worldwide who are missing all of their teeth (edentulous), and in some countries more than half of the elderly are edentulous. New evidence that simple implant treatment is a cost-effective way of improving the oral function, quality of life and general health of edentulous people should have significant consequences on the market for dental implants.

The table below shows the prevalence of edentulous elderly (age 65+ years) in selected regions (WHO, 2000).

WHO region	% Edentulous
The Americas	26–58
Africa	6–25
Europe	14–78
Eastern Mediterranean	7–46
South-East Asia	16–37
Western Pacific	11–57

Edentulism is a major health problem because, even when wearing conventional dentures, edentulous people have diminished capacity to speak, eat, digest and breathe.

Edentulism also has heavy socio-economic consequences. If one has no teeth, it is hard to establish personal relationships and employment opportunities are restricted. Furthermore, studies have shown that the nutritional state and general health of edentulous people is much worse than that of those who have their own teeth, even after taking into account socio-economic factors.

Since the vast majority of edentulous people are in lower socio-economic groups, we have been studying the most simple, low-cost standard implant treatment (lower overdentures supported by only two implants). We have shown that these improve chewing ability, interpersonal relationships and quality of life much more than conventional dentures. We calculated the additional annual cost of implant versus conventional therapy, and found it to be lower than CAD 200 per year. In addition, the ratio of change in quality of life score to cost of treatment is significantly less for implant treatment. In lay terms, you get much more per dollar spent on implant-supported overdentures than on conventional dentures.



Jocelyne S. Feine DDS, MS, HDR, is a Professor at the Faculty of Dentistry at McGill University in Montreal, Canada.

Finally, we found in a pilot study that the nutritional state of elderly people who receive these lower two-implant overdentures is significantly improved. We are now carrying out a large randomized controlled clinical trial to determine whether the nutritional state of people who wear these simple implant overdentures is significantly better than that of people who wear conventional dentures. We plan to follow these participants for the next decade to see if implants reduce general illness and care seeking, and if they prolong life.

As evidence of the benefits of implant overdentures increases, it will be the role of the dental profession, of organizations like the ITI and the manufacturers of dental implants to work with governments and other agencies that fund health care to make sure that this form of rehabilitation can be provided to the millions of people who are handicapped by the loss of all of their teeth.

Current literature: Feine J. and G. Carlsson, Eds. *Implant Overdentures – The Standard of Care for Edentulous Patients*. Quintessence, Chicago: 2003. A list of references for this article can be obtained upon request at investor.relations@straumann.com