iTOP - Harp instead of rock guitar

By Rolf Kufus, Switzerland

I n prophylaxis, the individ-
ual approach is as important
as the training aspect. iTOP,
which is Curaprox prophylaxis
training, therefore considers
“prevention” to be more than
just using fluoride toothpaste.

When Rolf Kufus, a Zurich
dentist, talks about prevention,
he emphasizes the demands
that prevention makes on den-
tists and patients alike. He
compares it to music: “In most
cases, prophylaxis means that
the guitarist in a heavy metal
band suddenly has to learn
to play the harp. This is not
something you learn overnight,
and especially not without a
teacher.”

Oral health is a pleasure.
Just like a delicate ripple on
the 47 strings of a harp, iTOP
teeth cleaning means saying
goodbye to the coarse scrub-
bing by a rock guitarist with
his few chords.

Right through from clean-
ing interdental spaces to the
proper use of the single tuft
and the efficient method with
a soft, densely-bristled tooth-
brush based on the modified
Bass method: iTOP is a three-
step tutorial for beginners and
advanced learners, for den-
tal professionals. With tooth-
brush, single tuft brush, inter-
dental brushes and dental floss
in hand, participants learn

Innovating Oral Care
What makes a great toothbrush?

By Hansjoerg Reick, USA

A s Hansjoerg Reick de-
scribes his career and
involve in Oral-B and Procter and Gamble’s Pro-
essional Care Technology, his enthusiasm and interest are
obvious. When asked what he
considers his greatest person-
al achievement since joining
Oral-B in 1996, he will tell you
that it has been helping people
achieve better oral health.

‘Oral care has been an area of
growth and great innovation,
an exciting business to be in
and a great opportunity to cre-
ate better products,’ Hansjoerg
recalled.

With research and develop-
ment facilities throughout the
world, all Procter and Gamble’s
innovative oral care products
are developed by global teams
in multiple technical centres
and with experts from different
disciplines.

This involves working in close
collaboration and partnership
with all stakeholders – den-
tal practitioners, universities,
product research and develop-
ment, marketing, clinical and
consumer research, engineer-
ing and quality assurance.

Hansjoerg and his team ‘tap
into the expertise and under-
standing of all technical cen-
tres worldwide, bringing to-
gether all of the innovators in
research, development, clinical
and consumer testing. In this
way,’ he added, ‘we can create
truly global and superior prod-
ucts.’

Big stride forward

In his opinion, the most in-
novative toothbrush develop-
ment has been the creation of
a small, round brush head with
an oscillating-rotating mo-
tion. The basic innovation for
this product happened shortly
before Hansjoerg joined the
company. ‘This was revolution-
ary and a completely different
cleaning approach, everything
else at the time was either a
manual or power brush that
mimicked manual brushing
motions,’ he said.

When asked how the research
and development team had
come up with the idea, Hans-
joerg will tell you that it was
dentists-inspired solution.
The research team developed
the oscillating-rotating power
brush by analysing the most ef-
fective cleaning mechanisms
available in the dental industry
and elsewhere – how brushes
and bristles worked, and in
what directions the bristles
went depending on the motion
of the brush.

‘What the team discovered was
that a rotational side-to-side
brush movement was neces-
sary for the bristles to reach
all areas of the teeth from all
angles, especially in hard-to-
reach areas. This novel design
was tested extensively in the
laboratory, in clinical trials and
by dentists in practice before it
was introduced.’

‘It has been independently re-
viewed and determined to be
superior to manual brushes –
especially in the critical lingual
and interproximal areas, and
other areas with difficult ac-
cess. This design provides the
best cleaning efficiency by sur-
rounding and adapting to the
morphology of the teeth,’ Hans-
joerg said.

‘It offers a superior clean expe-
rience and benefit for users. In
fact, a 2005 Cochrane collabo-
ration study found that only os-
cillation-rotation brushes were
consistently superior to manual
brushes for plaque and gingivi-
tis reductions.

‘In a more recent systematic
review in 2011, significantly
greater plaque and gingivitis
reductions were again found
only with oscillation-rotation
brushes compared to manual
brushes, confirming these
earlier findings. After I joined
Oral-B, we built on this innova-
tion by adding pulsations to the
oscillating-rotating technology
to create the 3D Professional
To discuss failures in modern dentistry concerning prevention

To discuss mechanical control of biofilm

To establish right criteria in choosing oral health tools

Objectives:

Date:

Venue:

Lecturer:

Objective:

- To establish right criteria in choosing oral health tools
- To discuss mechanical control of biofilm
- To discuss failures in modern dentistry concerning prevention
- To show clear difference in using interdental brush vs. floss

About the Author

Hansjoerg Reick is the associate director of research and development of Global Oral Care Advanced Technologies and Innovation at Procter and Gamble. He has a diploma in Mechatronics Engineering, and lives in Cincinnati, Ohio.
over several days how prophylaxis is more than mere fluoridation. That it means efficient and atraumatic brushing, individual training and even tailored coaching. Prophylaxis can also be a pleasure – and can motivate: Yes, my teeth are clean, my gums are healthy! Train and train once again - iTOP is individually trained oral prophylaxis, that rejects the thinly-spread “watering-can” principle in favour of individually tailored prevention. Every mouth is different, and because the individual approach often means “scrub less” that is also the training aspect that iTOP alumni such as Rolf Kufus emphasize in particular. How else are we to compete against the force of habit, which so often causes us to brush our teeth incorrectly from childhood on - with too much pressure from too hard a toothbrush and dental floss where only an interdental brush is of use? “Patients with tooth-cleaning damage such as exposed tooth necks are unaware of being ill but instead they feel they’re doing everything right,” says Rolf Kufus. “And nobody wants to intentionally destroy their mouth. These are all simply wrongly trained habits.” Catherine Schubert, dental hygiene specialist and iTOP instructor, knows how detrimental these habits can be: “All too often, I see patients who are still suffering from bleeding gums even after ten years of treatment because they were not educated and trained. This bleeding could so easily be stopped.” (Cf. box).

Implants - the failures of prophylaxis
Rolf Kufus realigned the prophylaxis concept for Personalised Dentistry in his practice after his first iTOP course. “People are living into their 90s nowadays. It’s better without tooth repair. Today, there is an ever-increasing number of these stages by a few years, we succeed in delaying each stage of the gums), one the most important step on the way to falling out. Kufus: “If we succeed in delaying each of these stages by a few years, then, except for special cases such as accidents or agenesia, an implant may no longer be necessary.” In this new interpretation, an implant can be ultimately seen as a failure of prophylaxis. It is no longer like it used to be, when prophylaxis was primarily understood to mean brushing three times a day using fluoride toothpaste and the brunt of the dental work was placed on tooth repair. Today, there is an increasing number of dentists who view prevention as an essential part of the Hippocratic oath - namely the obligation to dental health as a whole. This also changes the role of dental hygienists who are shedding their role as “abrasive cleaners” and are turning into partners and fitness trainers for the oral health of patients. Ultimately, iTOP also changes the role of a dental practice, moving away from repair towards prevention - without losing sight of profit orientation.

Dental care is fun like this
Dental hygiene professional and iTOP instructor Catherine Schubert on the:

- three most common mistakes in dental hygiene: Cleaning in the wrong place: the toothbrush is not close enough to the gums, with the result that its bristles cannot reach the sulcus. Brushing with too hard a toothbrush: if the toothbrush bristles are too hard, the patient automatically moves the brush away from the gums and simultaneously causes brushing damage. Brushing with too much pressure: together with cuts by flossing (and resulting recession of the gums), one the most frequently corrected errors.

- three most easily achievable improvements: Using an interdental brush: iTOP graduates learn with surprising speed just how efficiently the spaces between the teeth can be cleaned. Feeling rather than intellect: DH professionals mainly instruct patients using a model. In iTOP courses, they learn on each other how atraumatic tooth cleaning actually feels. Brushing perceived as pleasure: bleeding disappears in an instant thanks to a change in brushing technique and a soft brush. Dental care and its results create happiness.
HEALTHIER & STRONGER TEETH* STARTING FROM DAY 1

WITH CONTINUED USE

*ON ENAMEL PLAQUE AND ENAMEL EROSION VS ORDINARY TOOTHPASTE

Toothpaste from the No.1 toothbrush brand used by dentists themselves worldwide
Infection control in an era of emerging infectious diseases

It’s critical to remain vigilant in ensuring an infection-free environment

By Eve Cuny, USA

More than three decades have passed since the emergence of human immunodeficiency virus (HIV) as a global pandemic. More than any other infection, it is possible to single out HIV as the primary stimulus for changing infection control practices in dentistry. Prior to the mid-1980s, it was uncommon for dentists and allied professionals to wear gloves during routine dental procedures. Many dental clinics did not use heat sterilization, and disinfection of surfaces was limited to a cursory wipe with an alcohol-soaked gauze sponge. This was despite our knowledge that hepatitis B virus (HBV) had been spread in clusters in the offices and clinics of infected dentists and that dentists were clearly at occupational risk for acquiring HBV.

Plenty of reasons to remain vigilant

Today, many take safe dental care for granted, but there is still reason to remain vigilant in ensuring an infection-free environment for providers and patients. HIV has fortunately proven to be easily controlled in a clinical environment when the dos and don’ts are rigorously followed, but patients and health care workers are compromised and breaches occur when standard precautions are not observed. These standard precautions include the use of personal protective attire, such as gloves, surgical masks, gowns and protective eyewear, in combination with surface cleaning and disinfection, instrument sterilization, hand hygiene, immunizations and other basic infection control precautions. Sporadic reports of transmission of blood-borne diseases associated with dental care continue, but are most often linked to breaches in the practice of standard precautions.

Once-core viruses now in headlines

Emerging and re-emerging infectious diseases present a real challenge to all health care providers. Three of the more than 50 emerging and re-emerging infectious diseases identified by the Centers for Disease Control and Prevention and the World Health Organization (WHO) include Ebola virus disease (EVD), pandemic influenza and severe acute respiratory syndrome. These previously rare or unidentified infectious diseases burst into the headlines in the past several years when they exhibited novel or uncharacteristic transmission patterns. Concern about emerging infectious diseases arises for several reasons. When faced with a particularly deadly infectious disease such as EVD, which can spread through contact with an ill patient’s body fluids, health care workers are naturally concerned about how to protect themselves if an ill patient presents to the dental clinic. With diseases such as pandemic influenza and severe acute respiratory syndrome, which may be spread via inhalation of aerosolized respiratory fluids from a patient coughs or sneezes, the concern is whether standard precautions will be adequate.

In addition to standard precautions, treating patients with these diseases requires the use of transmission-based precautions. These encompass what are referred as contact, droplet and airborne precautions for diseases with these specific routes of transmission. Transmission-based precautions may include patient isolation, placing a surgical mask on the patient when he or she is around other people, additional protective attire for care providers, and in some cases, the use of respirators and negative air pressure in a treatment room. In most cases, patients who are contagious for infections requiring droplet or airborne precautions should not be treated in a traditional dental clinic setting.

Treatment delay can be best policy

Updating a patient’s medical history at each visit will assist dental health professionals in identifying patients who are symptomatic for infectious diseases. Patients with respiratory symptoms, including productive cough and fever, should have their dental treatment delayed until they are no longer symptomatic. Additionally, health care professionals who are symptomatic should refrain from coming to work until they have been free of fever without taking antipyretic medications for 24 hours.

In most cases, a patient with symptoms as severe as those experienced with EVD will not present for dental care and therefore extraordinary screening and protection protocols are not recommended. If a patient is suspected of having a highly contagious disease, he or she should be referred to a physician, hospital or public health clinic.

Protect yourself and patients with vaccinations, proper hand hygiene

Dental professionals should take action to remain healthy by being vaccinated according to accepted public health guidelines, understanding that the recommendations may differ according to country of residence. Performing hand hygiene procedures at the beginning of the day, before placing and after removing gloves, when changing gloves for each patient, wearing a clean mask and gown or laboratory coat, and wearing protective eyewear are all positive actions that help prevent occupational infections. In addition, cleaning and heat sterilization of all instruments and disinfection of clinical surfaces ensure a safe environment for patients. There is solid evidence that dental care is safe for patients and providers when standard precautions are followed, but patients and dental health care workers are placed at risk when precautions are compromised and breaches occur.

References


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Eve Cuny is the director of environmental health and safety and associate professor at Pacific Douglass School of Dentistry in San Francis- co. She is a consultant to the ADA Council on Scientific Affairs and expert reviewer to the Centers for Disease Control and Prevention. Cuny is past chairperson of the Organization for Safety, Asepsis and Prevention (OSAP) and is a member of the National Occupational Research Agenda Council with the U.S. Department of Health and Human Services. She has published articles and textbook chapters on safety and infection control and presented numerous continuing education programs domestically and internationally.
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