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TAKE CARE OF YOUR

gums ¹⁷

Outreach magazine of the SEPA Foundation for Periodontology and Dental Implants

Period II, No 17
2nd semester 2019.
Editor:
Regina Izquierdo



Take care of your mouth your heart demands it

Sepa.

—

Oral health for everyone



Take Care of your Gums

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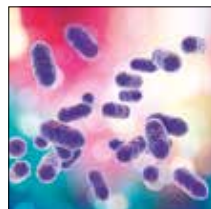
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Your heart is thankful for the care that you take with your oral health. And this is because having healthy gums is not only fundamental for preventing the appearance of cardiovascular diseases and improving the quality of life associated with health, but also because it can benefit people who have already suffered a prior cardiovascular event.



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PRESENTATION

Regina Izquierdo
Scientific editor of the magazine
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We continue to advance

PERIODONTAL DISEASES are the sixth most common disease at a global level and, because of this, represent such a problem for public health that they can be described as a "silent epidemic", as various experts have suggested.

Supported by more than 20 years of research and scientific evidence in periodontal medicine, we at the SEPA Foundation and "Take Care of your Gums" would like to issue a call to the population to adopt actions as simple as brushing teeth and cleaning in between teeth as a daily habit that is essential for having better health.

If the promotion of health consists of equipping people with the necessary tools so that they can take care of their health and improve their quality of life, succeeding in getting international institutions and organizations to include oral health in their programmes is a real challenge that motivates us to continue advancing.

Proof of this is that SEPA, together with other scientific societies, is taking important steps. Such as ensuring that patients in hospital cardiac-rehabilitation also units receive advice on oral health. Similarly, in the coming months a protocol for detecting diabetes in the dental clinic will be implemented, to which the more than 20,000 dentists who practise in Spain can sign up.

These are small – but real and specific – steps that imply a great advance and which remind us that there is still much for us to do in developing periodontology and promoting oral and general health.

Take Care of Your Gums

Informative publication of the SEPA Foundation of Periodontology and Dental Implants.

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Writing: Francisco Romero
English translation:
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elEstudio.com

Period II, No. 17
2nd semester. 20019
Editor: Regina Izquierdo

For more information:
Tel.: 913 142 715
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Take care of your mouth, your heart demands it

SECTION CO-ORDINATED BY:

Juan Puchades Rufino
Associate professor
of periodontology at
the University of Valencia

QUALITY OF LIFE GOES HAND IN HAND with health and is defined as “the perception of an individual of their life situation, within a cultural context and value system in which they live, in relation to their objectives, expectations, standards, and interests.”.

Oral Health and quality of life

Starting from these concepts, the idea that oral health affects people’s quality of life in a significant way is more and more widespread. All specific factors that generate an alteration that provokes symptomology in the patient, reduce their capacity for mastication and functionality, and leads to any psychological problem (deterioration of confidence and lack of socialization) are agents that effect quality of life.

But, as well as its impact on quality of life, the presence of an oral disorder such as periodontal disease not only directly affects quality of life through its symptomology and its functional and

The relationship between periodontal disease and cardiovascular disease is two-way

psychosocial impact, but also in a more subtle way through the effects of the increase of systemic inflammation. In recent years, much evidence has been accumulated that shows how certain gum diseases such as periodontitis have very significant interactions with many other general diseases, such as those that affect cardiovascular health, largely because of their capacity to increase the degree of inflammation both in the oral cavity and in the rest of the human body.

Thus, periodontal disease not only generates a significant impairment to quality of life but can also affect cardiovascular health. In fact, the latest research claims that this relationship between periodontal and cardiovascular diseases is not only significant but also two-way. →

WORDS
OF THE
EXPERTS

“Studies carried out in Scandinavian countries show that senior citizens living in care homes who have more teeth present and in a good functional state have better indicators of life expectancy and quality of life”



Blas Noguero

Tustee of the
Sepa Foundation.





Without periodontal health, there is no health

IN ACCORDANCE WITH THE RECOMMENDATIONS debated recently in the joint meeting of the EFP and the AAP on systemic diseases, held in 2012, the diagnosis and management of periodontal disease constitutes a significant public-health issue.

Why?

- 1** Today, severe periodontal disease is the sixth most common disease at the global level, with more than 750 million people affected.
- 2** It is a recognised cause of incapacity and worsening of quality of life.
- 3** As the risk factors for periodontal disease also produce cardiovascular diseases, the World Health Organization's "Common Risk Factor Approach", aimed at improving human health, should include the establishment of oral-hygiene measures on the part of the patient.
- 4** As it is a chronic inflammatory disease, periodontal disease could have potentially negative consequences for general health.
- 5** In a more specific way, a diagnosis of periodontal disease could contribute to stratifying the risk of suffering a cardiovascular event. Nonetheless, more evidence is needed to confirm a beneficial effect from obtaining periodontal health beyond the treatment models already established for cardiovascular diseases based on lifestyle changes and the use of medication.



Miguel Carasol
PhD in Dentistry,
Complutense
University of
Madrid.

“The early detection of cardiovascular risk and diabetes in the dental clinic must be a priority, given its simplicity and the huge personal and social benefit that it brings, as well as the undoubted increase in prestige for the professionals who perform it”

A call to action

The current evidence invites a call to action by doctors, dentists, and the general population, with institutional support also being essential.

Doctors and general dentists must be aware of the evidence that links periodontal diseases to cardiovascular diseases, advising patients about their potential risks.

Patients with periodontal disease who present other risk factors for cardiovascular disease should be sent to the doctor if they have not had any medical examination within the last year.

All modifiable risk factors for periodontitis (and cardiovascular disease) associated with lifestyle should be tackled in the dental clinic, including programmes for stopping smoking and changes to lifestyle (diet and exercise). This can be easier to achieve in collaboration with other specialists.

WORDS OF THE EXPERTS

“Periodontal disease and atherosclerotic disease are health problems that are very prevalent and interrelated. They share risk factors and have some common physiopathological aspects, especially chronic inflammation”



Regina Dalmau
President of the National Committee for the Prevention of Tobacco Use.

Oral health affects people's quality of life in a significant way

→ Inflammation: the alleged offender

Cardiovascular diseases are the main cause of death in adults, representing 30.3% of the total, with ischemic cardiopathy the most common cardiovascular cause of death. The reduction of the prevalence of ischemic cardiopathy is thus one of the main aims of public health.

Periodontal diseases not only have a direct influence on quality of life through their symptoms and their functional and psychosocial impact, but also through the increase in systemic inflammation

Inflammation is a causal risk factor essential to the cardiovascular diseases associated with atherogenesis, whose most common acute event is myocardial infarction. Furthermore, the role that various inflammatory mediators could play in the mobilization of atheromatous plaque has been confirmed.

Periodontal diseases are found among the most common chronic diseases of the human being. Their origin is bacterial and, among their pathogenic mechanisms, the presence of an inflammatory response, with various mediators, is significant and this has been identified in the blood stream and can be located in various organs that are a long way from the oral cavity.

These findings awakened the interest of the scientific community and some researchers proposed

seeking the possible relationship between both diseases: cardiovascular and periodontal. This interest arose from the observation of the frequent coexistence of both diseases in the same patients. The question was to determine if there was a (causal) correlation or if there was merely a temporary coincidence of widespread diseases that share common causal factors.

Looking for the source

To better understand the etiopathogenesis (the origin and the mechanisms of development) of cardiovascular diseases, it is necessary to know the anatomy of the blood vessels. Arteries are charged with distributing blood from the heart throughout the whole organism (transporting oxygen), apart from the pulmonary arteries. The musculature of their walls allows them to contract and dilate to control the amount of blood that reaches the organs.

The blood vessels have three layers: the tunica intima, the tunica media, and the tunica externa. The intima level is made up of the endothelium, the basement membrane, and the subendothelial layer, which is present in arteries as well as veins. The media layer is composed of smooth muscular fibres, elastic fibres, and collagen, depending on the type of artery.

The endothelium expresses receptors that thanks to certain molecules, allow stimuli to be sent to the smooth muscular fibres which enable a response of vasodilation and vasoconstriction.

The main cause of coronary disease is atherosclerosis. Atherogenesis is a disease that affects the arteries and is characterized by the accumulation of

fat in the internal lining of the arteries, which makes them narrow and less flexible. This reduces the amount of blood and oxygen that is delivered to the vital organs.

In recent years, it has been suggested that one of the most common causes of inflammation in the body is periodontal disease. Inflammation has been shown to be a risk factor for cardiovascular disease, found at the origin of atherosclerosis and in its complications.

The biological mechanisms that justify this relationship are coherent with existing medical and biological knowledge. Today it is well accepted that periodontal diseases are infections that generate an inflammatory response that has effects on the rest of the organism. It is also well known that arteriosclerotic cardiovascular disease is essentially an inflammatory process.

It is now recognised that more than direct remote bacterial colonization, the factors that would be involved in this relationship between cardiovascular disease and periodontal disease are the accumulated effects of repeated bacteraemia, and their consequences at the level of systemic inflammation, as well as the effect of the inflammatory mediators produced in the periodontal lesion. →



Ana Molina
Associate professor
and ETEP Group
member, Complutense
University of Madrid.

"The cardiologist and the dentist should establish what is the best moment to perform oral treatments in patients with cardiovascular disease"



New educational leaflet for patients "Cuida tus encías, cuida tu corazón" [Take care of your gums, look after your heart] now available at www.sepa.es

Periodontal treatment reduces systemic inflammation consistently and improves endothelial function, factors associated with the appearance of myocardial infarction



→ **Sharing risk factors**

But, as well as the possible biological and pathological explanation of the link between cardiovascular health and oral health, there are other factors that show the close relationship between the two entities.

For example, it is known that cardiovascular disease and periodontal disease have some risk factors in common. Smoking, diabetes mellitus, arterial hypertension, and hypercholesterolemia are – among many others – problems that typically appear associated with the development of cardiovascular events and with the appearance or worsening of gum diseases.

These are of great importance, as they can lead to oral or cardiovascular disease. There is also an increased risk of periodontal and cardiovascular disease in patients with metabolic syndrome, which is a pathological condition that encompasses those

patients who suffer obesity, arterial hypertension, high levels of glycaemia and triglycerides, and reduced levels of HDL cholesterol (the so-called “good” cholesterol).


Periodontal treatment and improving oral health

On the basis of this evidence, it has also been investigated whether it is possible that treating periodontal problems can help prevent cardiovascular problems.

At an international meeting held in Spain, leading experts from across the world met the workshop of the EFP (European Federation of Periodontology) and the AAP (American Academy of Periodontology), the effects that can be derived from periodontal treatment were summarised. This panel of experts concluded that “periodontal treatment leads to a reduction in systemic inflammation, consistent and progressive, as well

Repeated bacteraemia, increasing systemic inflammation, and the effect of inflammatory mediators produced in the periodontal lesion could explain the pathological relationship between cardiovascular disease and periodontal disease

as to an improvement in endothelial function”, something that is particularly important if one takes into account that both diseases are “associated with an increased risk of suffering a myocardial infarction.” For all that, it is recognized that “the evidence is limited about how these acute or chronic changes can reduce the cardiovascular risk of individuals with periodontitis in the long term. ■



If you have cardiovascular problems, tell your dentist

ALL PATIENTS WITH CARDIOVASCULAR risk or cardiovascular disease should inform their dentist who should give them a series of recommendations when they visit the practice because, without any doubt, the risk at the dental level is greater.

If you have hypertension

THE DENTIST HAS AN IMPORTANT ROLE to play in detecting the undiagnosed or poorly treated patient with hypertension. Given the high prevalence of hypertension and the widespread use of medications to treat it, both dentists and cardiologists should be attentive to the side effects of these drugs in the oral cavity. They should also know the possible interactions between prescribed antihypertension medications and the medication used in dental clinics.

And if you are receiving anticoagulant treatment

In **ANTICOAGULATED PATIENTS**, both the European guidelines of cardiology (Class 1 recommendation, evidence level C) and specific research in the field recommend maintaining oral anticoagulation (OAC) before simple tooth removal, whether or not there is periodontal disease. There is no current information that suggests interrupting the OAC to carry out minor oral surgery, although it is recommended to use appropriate haemostasis techniques and determine the International Normalized Ratio (INR) on the day of the intervention.

Avoid infectious endocarditis, a priority

THE RISK OF INFECTIOUS ENDOCARDITIS following an oral procedure is a reality. Despite the doubts that exist today, in the latest European guides dental procedures are maintained as the only situations in which antibiotic prophylaxis is recommended and only for patients with a high risk of endocarditis: patients who bear cardiac-valve prostheses and patients with congenital cardiopathies.

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Periodontitis and rheumatoid arthritis: much more than a coincidence

There is increasing evidence that confirms the relationship between periodontitis and rheumatoid arthritis (RA), showing not only that infection of the gums increases the risk of developing this autoimmune disease but also that it increases its activity and aggressivity.

SECTION CO-ORDINATED BY:

Gloria Calsina
Certified in periodontology
University of Southern
California, USA

THE CAUSE OF RHEUMATOID arthritis (RA) is not clearly established, although it is known that many factors are involved in its appearance, development, and aggravation. Among these, periodontitis is particularly important. In addition, patients with RA frequently present oral alterations, such as Sjögren syndrome, xerostomia (dry mouth), changes in the temporomandibular joint, and periodontal disease.

In recent years, more importance has been given to oral health in patients with RA, above all after finding that the prevalence of periodontal disease is increased in this group of patients. It has been suggested the inflammation in the surface of the oral mucosa (gums) could be the triggering factor in the systemic autoimmune disease that occurs in RA.

A common link: inflammation

AR and periodontitis are chronic inflammatory diseases. They share the same pathways and inflammatory and immunoregulatory mechanisms, as well as genetic factors and other risk factors, such as smoking and poor oral hygiene. →

It is considered that inflammation in the surface of the oral mucosa (gums) could trigger the systemic autoimmune disease that occurs in RA

WORDS
OF THE
EXPERTS

“Periodontal bacteria, such as *P. gingivalis*, have been found in the joints of patients with rheumatoid arthritis”



Jerrián González

Periodontitis and rheumatoid arthritis investigator in the ETEP Group, Complutense University of Madrid.



Periodontitis and RA: what are they?

PERIODONTITIS is an inflammatory disease of bacterial origin, which affects the tissues that support teeth provoking their destruction and often leading to the loss of teeth if correct treatment is not carried out. It is estimated that periodontitis affects 38.4% of the Spanish population (almost double this rate – 65% – among people older than 55).

RHEUMATOID ARTHRITIS is a chronic autoimmune disease of multifactorial aetiology that affects 0.5-1% of the global population. It is more common in women (1:3) and it shows up particularly between 40 and 60 years of age. It is a chronic and progressive inflammation of the tenosynovium, which provokes the destruction of cartilage and bone. It produces joint destruction – the result of a chronic inflammation of the tenosynovium – creating deformities, functional problems, and incapacity among these patients. It causes inflammation, pain, joint rigidity, and incapacity. It can also present with other systemic complications. It can affect any joint, although it is more common in the small joints of hands and feet.



Many people with RA have more difficulty in carrying out correct oral hygiene because of the joint dysfunctions from which they suffer

→ The hypothesis that relates RA and periodontal disease holds that Porphyromonas gingivalis (the main bacterium that causes periodontitis) is able to change the tolerance of citrullinated proteins (the body perceives them as a threat), triggering an autoimmune reaction (autoantibodies are created that fight against the protein coatings of the joints, generating inflammation), which eventually provokes RA. It has also been observed that A. Actinomycetemcomitans, through another pathogenic mechanism, is also able to produce the citrullination of proteins, giving rise to the formation of antibodies against the citrullinated protein.

Some studies show that these antibodies associated with RA are already present in the organism for up to a decade before there is evidence of joint disease. This leads to the thought that they could originate in a place away from the joints – which could well be the inflamed mucosa of gums with periodontitis – and that this could be the primary triggering factor in the systemic autoimmune reaction involved in RA. Other environmental factors, such as tobacco, are associated with the presence of citrullinated proteins. Thus, tobacco is a risk factor both for RA and for periodontitis.

Treatment

The treatment of RA is aimed at reducing inflammation and slowing the destruction of cartilage and bone through non-steroid anti-inflammatory drugs (NSAID) and antirheumatic medications, among others.

Recent studies have evaluated the possible effect of conservative periodontal treatment on the activity of RA, suggesting that treating periodontitis can have a favourable effect on RA and could be a non-pharmacological treatment that provides direct benefits to patients with RA. It is thus recommended to keep gums healthy to improve general health and RA in particular.

Research suggests that good oral care can have an impact on the health of the joints, although more clinical studies are required to determine the biochemical process and the clinical relationships between periodontitis and RA. These studies should also consider factors such as the medication administered for the treatment of these diseases and the differences in oral hygiene and smoking habits in these patients. ■

The cause of rheumatoid arthritis is unknown, but it is believed that it could be related to periodontitis



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EXPERTS

“Understanding the interrelationship between periodontitis and rheumatoid arthritis helps the early diagnosis of both diseases; in addition, periodontal treatment enables an improvement in the signs of arthritis”



Isabel López-Oliva
Professor in the
Periodontics Department,
Queen Mary University
of London.



4 recommendations for oral care

AS PERIODONTAL DISEASE CAN BE a triggering and/or aggravating factor for rheumatoid arthritis, dentists who treat patients with periodontitis should:

1. Know that they could have a greater risk of developing RA.
2. Recognise the early signs of RA disease, such as morning stiffness and joint pain.
3. Pay special attention to the oral cavity of patients with RA and carry out a strict dental and periodontal control and treatment.
4. Show patients how to brush their teeth correctly and recommend special care devices to help them with their daily brushing when the joints are painful and rigid.

Do not forget that...

- Rheumatoid arthritis is a chronic autoimmune inflammatory disease that is very complex and multifactorial.
- It is believed that periodontal disease could be a factor that contributes to the development of RA.
- Periodontitis could increase the activity and aggressivity of RA.
- More studies are needed to confirm the link between RA and periodontitis, as well as to clearly understand the mechanism of this association.
- The treatment of periodontal disease could have a direct positive impact on the control rheumatoid arthritis.
- Achieving good oral health and performing an early diagnosis and treatment of periodontal disease should be part of the clinical treatment of RA, and could even reduce the associated healthcare costs.
- Periodontists and rheumatologists should work together, with the aim of improving the quality of daily life of people with RA.

Guide to coping with peri-implant diseases

SECTION CO-ORDINATED BY:

Nerea Sánchez
Master's degree in
periodontology, Complutense
University of Madrid

THE USE OF DENTAL IMPLANTS to replace missing teeth has become one of the most demanded options in the dental clinic, thanks to its convenience and similarity to natural teeth. However, if a series of measures are not adopted – such as maintaining a strict cleaning of the implants at home and their regular cleaning by the dentist – undesirable complications can appear, such as peri-implant diseases.

These are inflammatory diseases of the tissues that surround the implant, produced by the accumulation of dental-plaque bacteria or “biofilm”. There are two types of peri-implant disease: peri-implant mucositis and peri-implantitis.

The best treatment, prevention

The best way to tackle peri-implant diseases is to establish suitable preventative measures. They are simple, effective, and easy to carry out. Basically, establishing and following a strict control of the health of implants and an oral care identical to that followed with natural teeth often ensures the prevention of mucositis and peri-implantitis.

But although the best therapy would be not to suffer disease in the first place, once we do suffer from it the treatment involves the removal of the bacteria present between the gum and the implant as well as the eradication of the risk factors for these diseases. →

It is estimated that more than half of people with dental implants in Spain develop a peri-implant disease in the medium term, which lowers the success rate of these implants and reduces their average life. Nonetheless, they are diseases that are generally easy to prevent and treat

WORDS
OF THE
EXPERTS

“For the effective treatment of peri-implantitis, it is essential to eradicate those local and systemic factors that have contributed to the development of the disease”



Alberto Monje
Periodontics Department,
International University of
Catalunya.

6 tips to prevent peri-implant diseases

- 1** Correctly brush teeth and implants, including measures for interdental hygiene (such as dental floss/tape and interproximal brushes) after every meal.
- 2** If the prosthesis worn on the dental implants does not allow the performance of correct oral hygiene around the entire implant (including spaces between implant/tooth or implant/implant), it is necessary to visit the dentist to modify or change the form of the prosthesis and enable an adequate hygiene of 360° of the implant surface.
- 3** Attend the dental clinic so that the dentist/periodontist can perform professional hygiene on the implants at least twice a year.
- 4** If you suffer from periodontitis, attend check-up and maintenance visits with the periodontist more often (typically every 4-6 months) to keep the disease controlled.
- 5** Give up smoking.
- 6** In people with diabetes, maximize measures to achieve an adequate control of glycaemic levels.



Surgical approaches to peri-implantitis

Given that it is often not possible to stop peri-implantitis by only non-surgical means, it may be necessary to start a phase of more advanced treatment. In general, the strategies of this second phase are of three types:

REGENERATIVE APPROACH: artificial bone is introduced into the bone defect generated by the disease, after first cleaning the peri-implant surface, and it is covered with a membrane. This treatment cannot always be performed, as it requires that the form of bone loss is able to contain the regenerative material within the defect.

APICALLY POSITIONED FLAP, with the aim of displacing the soft tissues towards the bone, in a way that reveals the greatest possible amount of the implant, so that both

the patient and the professional can clean it more easily.

This type of approach tends to be used more in the posterior sectors (area of the molars) as its use implies the visibility of the metal of the implant, which is anti-aesthetic. Sometimes this treatment is combined with so-called "implantoplasty" or polishing the exposed turns of the implant, a means of decontaminating it.

ACCESS SURGERY: this intervention seeks to access the affected surface of the implant but preserves the surrounding soft tissues as much as possible. This focus is used to a greater extent in the aesthetic sectors of the mouth.





Peri-implant diseases are inflammatory diseases of infectious origin that affect the tissues that surround the implant, produced by the accumulation of bacteria in dental plaque

→ The affected person must make certain changes in their habits. For example, stopping smoking is fundamental along with learning to clean implants properly after every meal consistently and carefully. People with diabetes should visit the doctor responsible for their glycaemic control to check that their levels of blood sugar are appropriate. Similarly, people who are receiving radiotherapy should maximize hygiene measures and visit their dentist regularly to check their mouths.

On the other hand, the dentist will carry out treatment of mucositis or peri-implantitis in the dental clinic.

Treatment for mucositis

Mucositis is a reversible disease, that is to say, once the cause of inflammation (bacterial plaque) is removed and risk factors corrected, the inflammatory state of the mucosa improves and health is recovered.

Thus, mechanical debridement by the professional - consisting of the removal of supra- and subgingival plaque by means of ultrasonic devices and specific curettes for implants (made of materials that maintain the integrity of their surface, such as Teflon or titanium) - is the preferred approach for the treatment of peri-implant mucositis.

Certain types of laser and air-polishers with glycine spray can also be used.

In combination with the above, the surface of the implant and its prosthesis are polished through a rubber layer and polishing paste, or air-polishers with abrasive substances, which enables the elimination of the traces of remaining plaque.

Treatment of peri-implantitis

Rather more complex is the therapeutic management of peri-implantitis. In this case, what is affected is not limited to the soft tissue but also includes loss of the bone that supports the implant, which significantly complicates the situation. In fact, there are cases in which the peri-implant bone loss is such that the only viable treatment is the removal of the implant or "explantation"

Treatment focuses on the removal of the bacteria present between the gum and the implant, as well as the removal of risk factors

In those cases where it is considered that the implant should be maintained in the mouth, various phases of treatment tend to be performed: first, non-surgical treatment of peri-implantitis, followed some weeks later by surgical treatment. →

WORDS
OF THE
EXPERTS



Cristina Carral
PhD in Dentistry,
University of Santiago
de Compostela.

"Dental implants are a magnificent tool for replacing missing teeth, but they require meticulous care at home and in the dental clinic"

WORDS OF THE EXPERTS

“It is our duty as professionals that our patients be informed of the high prevalence of peri-implant diseases. Dental implants are neither the panacea, nor in many cases, are for life”



Ramón Ceballos
Postgraduate in periodontics, South California University.

Anti-microbial mouthwashes in the weeks after treatment contribute to the prevention of bacterial recolonization and support hygiene practices

→ The non-surgical approach is very similar to that performed to treat mucositis:

- mechanical debridement by the professional to eliminate the accumulated bacterial plaque.
- scrupulous hygiene by the patient.

However, it is not often that peri-implantitis is resolved with this non-surgical approach – regardless of the type of therapy employed (mechanical, chemical, or photodynamic) – plus the addition of antimicrobial mouth rinses and even orally administered antibiotics.

One of the most important signs for the diagnosis of peri-implant diseases is the presence of bleeding when brushing

As a result, a second “surgical” stage in the treatment of peri-implantitis is often required. This approach exposes the surface of the implant and its bone support, with the aim of removing bacterial plaque, trying to decontaminate the affected surface and encouraging a later situation that

facilitates oral hygiene by the patient and by the dentist during visits.

Once this intervention has been carried out, it is necessary to maximize hygiene measures, as well as for the patient to be subjected to professional cleaning of the implants more often than if they had not suffered from

Presenting or having had periodontitis increases the risk of developing peri-implant diseases

this disease (at least every five or six months).

Despite all these strategies that have been proposed and investigated for the management of peri-implantitis, in many people affected – and after carrying out both phases of treatment – the disease is not stopped. Thus, the best treatment is undoubtedly prevention, which will avoid the start of the diseases. ■



Leticia Caneiro
Collaborating professor of the master's degree in periodontology, University of Santiago de Compostela.

“The best treatment of peri-implant diseases is prevention; correct toothbrushing and frequent visits to the dentist reduce the appearance of these diseases”

2 TIMES A DAY, ACT:



- 1** Brush your gums and teeth using a toothpaste.



- 2** Use dental floss or interdental brushes.



- 3** Strengthen your hygiene with a mouth rinse.



- 4** Get a new toothbrush.



- 5** Visit your dentist or periodontist for a gum check-up and to have your mouth cleaned.

EVERY 3 MONTHS:

EVERY 6 MONTHS:

What are peri-implant diseases?

MUCOSITIS.

MUCOSITIS is the inflammation of the mucosa that surrounds the implant, without affecting the bone in which the implant has been placed. It is typically diagnosed by the presence of bleeding on probing and the absence of bone loss on the radiograph.

PERI-IMPLANTITIS.

PERIIMPLANTITIS is a type of peri-implant disease in which, as well as inflammation of the peri-implant soft tissues (and, as a result, bleeding), there is a progressive loss of the bone that houses the implant, visible in a radiograph. The advance of the disease can lead to the loss of the implant.

Are my implants safe?

Peri-implant diseases, like periodontal disease (or gum disease) and unlike caries, does not produce pain; as a result, the fact that an implant does not hurt does not mean that it is healthy.

One of the most important signs for the diagnosis of peri-implant diseases is the presence of bleeding, which indicates inflammation. If we have been treated with implants and notice bleeding when brushing, we should go to the dental clinic as soon as possible.

Visit your dentist at least every 6 months

Even if we do not notice any bleeding, it is necessary to visit the dental clinic for a check-up and for cleaning our implants at least twice a year, given that the percentage of people with some kind of peri-implantitis is very high.

In people with periodontitis, one of the most advanced types of gum disease, it is usually necessary to perform this cleaning more often – so having a prior history of periodontitis is related to a greater frequency of peri-implant diseases.

IN COLLABORATION WITH:



Oral health has a deep influence on quality of life"

FILIPPO GRAZIANI

PRESIDENT OF THE EUROPEAN
FEDERATION OF JOURNALISTS (EFP)

SECTION CO-ORDINATED BY:

Assumpta Carrasquer
Professor of Master's
degree in periodontology and
implants. Faculty of Dentistry,
University of Valencia.

He is the highest representative of the European Federation of Periodontology (EFP), an organization that today gathers some 37 scientific societies from across the world and which has become the international benchmark in research, training, and outreach in the field of gum diseases and implant therapy. Dr Filippo Graziani is also a strong defender and promotor of the social dissemination of oral health, as well as an assiduous collaborator in initiatives developed by the Spanish Society of Periodontology (SEPA).

Dentistry is more and more specialized, but at the same time there is growing evidence that shows the huge influence that oral health has on general health. How do both realities go together?

It is a complex matter. One the one hand, it is true that dentists are going to be more specialized and this is inevitable; we are gaining more knowledge and more understanding, and it is unlikely that we could slow this tendency towards hyper-specialization. But, on the other hand, the interaction between the mouth and the rest of the body is very clear.

What is most important, ultimately, is to accept that our work is not only about improving the health of the mouth but also about trying to change the lives of human beings and improve their general health.

To be specific, how does oral health affect quality of life?

Quality of life is very much affected by oral health. You can have a tremendous pain in the knee or other problem in the leg, just to give one example; but you still go out to the cinema, meet friends, and continue having a social and work activity that is relatively normal. But if there is something bad in your mouth, typically you will isolate yourself at home: you will not go out if you have bad breath, if gums bleed, or if you are missing a tooth that is very visible.

In these cases, there is no doubt that a deficit in oral health plays an important role in quality of life. And patients know it.

Patients value their oral health more than dentists often think. And all the studies carried out about this confirm that patients believe that the health of their mouth is a part of their global health and that they think that it is something important.

Is it because of this that there is an increase in studies on oral health and quality of life?

Yes, quality of life is one aspect that is often studied in the field of dentistry. In the last 20 years we have noted a surge in research on the quality of life related to oral health, showing that oral health profoundly affects the interaction between human beings

We want to increase social awareness and knowledge among the population about the perio-systemic link

and their capacity to relate to each other. Undoubtedly, oral health has a deep influence on quality of life.

And, as well as this, it seems that there is also a clear relationship between oral health and general health...

Today it is very clear that oral health has the capacity to significantly affect general health because oral health is part of general health.

If you have periodontitis you are going to have a greater propensity to develop diabetes, you are going to have more likelihood of developing many other diseases, mainly cardiovascular, to give an example...

Today, links have been established between periodontitis and more than 50 diseases – in fact 57 diseases. It thus seems clear that severe periodontitis is closely related to general health, with a significant direct relationship.

Exactly. How is this type of association established?

We often know that there is an association and suspect a possible link.

MESSAGES TO
CONSIDER

"Quality of life is very much affected by oral health"





CURRICULUM VITAE

Dr Filippo Graziani is a specialist in periodontology (Eastman Dental Institute, London) and in oral surgery (University of Naples), and has a master's degree in clinical research from the University of Pisa where he is an associate professor.

He is a member of the editorial committee of the Journal of Clinical Periodontology and president of the European Federation of Periodontology (EFP).

The interview in 10 phrases

"Our work not only seeks to improve oral health but also tries to change the lives of human beings and improve their general health"

"If there is something bad in your mouth, it is typical to isolate yourself at home"

"In dentistry, quality of life is studied more and more"

"The health of the mouth deeply affects interaction between human beings"

"Oral health has the capacity to significantly influence general health"

"If a person with diabetes has periodontitis, their glycaemic control will be poorer, and they will have more risk of complications"

"A person with poor oral hygiene has a higher likelihood of developing myocardial events"

"The EFP has positioned itself as the global benchmark in the field of periodontology"

"Periodontal surgery is still necessary, but the trend is to do it less and when it is done it is more complex and decisive"

"Today even teeth that in the past would have been considered impossible to save can be saved through periodontal treatment"

→ Often the reasoning behind this involves blaming the presence of bacteraemia that is very frequent in periodontitis, but also global systemic inflammation which is specific and typical in people who have periodontitis.

SEPA represents one of the models to follow for scientific societies in Europe and across the world

What are the diseases where there is most solid evidence about this connection?

Without a doubt, today the disease where we have most evidence is diabetes. So, for example, we know that if a person with diabetes also has periodontitis, they will have a poorer glycaemic control and will tend to have a higher level of medical complications. But the good news is that if you treat the periodontitis this also has a significant beneficial effect on glycosylated haemoglobin and on the control of diabetes.

But the cardiovascular link is more and more solid. At the EFP, in a meeting with leading experts (the Perio & Cardio Workshop), we concluded clearly that a person with poor oral hygiene has a much higher likelihood of developing myocardial events compared to someone who maintains good oral hygiene.

So, the association between periodontitis and cardiovascular disease is also worthy of study and concern?

Indeed. The evidence is clear enough: having good oral health and following good oral hygiene, visiting the dentist regularly, and receiving appropriate periodontal treatment is associated with better cardiovascular health.

Knowing this, do you consider that dentists should take an extra step in their work and become promoters of general health rather than just experts in oral health?

Certainly. I believe that this opens a significant opportunity in terms

of patient care, but it also offers an opportunity for research and business. The dentist can and should be a provider of general health. And this implies knowledge and that dentists should expand their training and that they need to interact with other medical colleagues.

Specifically, what role should the dental clinic have in the prevention, detection, and follow-up of diseases such as diabetes and cardiovascular diseases?

It is not only about taking blood samples to detect the level of glucose. In fact, the first and most important thing that the dentist should do is to use various types of questionnaire that are used by certain medical societies, thanks to which it is possible to test – that is to say, to detect – those patients who have more risk of developing diabetes or some kind of cardiovascular disease. And, from this, direct them to the appropriate specialist and offer them some basic health advice.

Knowledge about periodontitis has drastically increased in the last four or five years

You recently became president of the EFP. What is this institution doing in relation to the promotion of periodontal health to the European population?

The Federation defends the existence of a link between oral health and systemic health and we recently organised various training and scientific events to highlight this. We want to increase social awareness and knowledge among the population of the perio-systemic link as well as among all the relevant actors in public health, including the health institutions, universities, and dentists themselves. And, in fact, I believe that knowledge about periodontitis has increased drastically in the last four or five years.

Links between periodontitis and more than 50 diseases have been established

And what will be the main lines of action?

The first is to support our globalization and encourage internationalization. As a federation, we have just acquired six international members (in the Americas and Asia) and there is no turning back.

The EFP will be more and more international and we have positioned ourselves as the global benchmark in the field of periodontology. Our origin is European, but our message goes much wider.

I would also highlight that we are a younger and younger federation. The majority of people who attend EuroPerio are under 40. Because of this, we are trying to take advantage of new tools to contact them – we are contacting the population of the future.

Personally and professionally, there is a close relationship with the Spanish Society of Periodontology. How to you evaluate the role that is being played by SEPA?

SEPA has done some incredible things: its level of organization, rigour, vision of the future, and strategic application is remarkable. I believe that SEPA represents one of the models to follow for scientific societies in Europe and the whole world.

SEPA has expanded some key messages and this has allowed it to carry out policies that are not possible for other societies. SEPA is always at the forefront and is a great example for many other societies.

So, do you think that Spanish dentistry is at a high level?

Definitely. And you have only to look at some of the Spanish experts who lead research, training, and clinical care in periodontology and implant therapy. A clear example is Professor Mariano Sanz, whom I define as a “maestro”, he is a model and a mirror for his students.

MESSAGES TO CONSIDER

"The dentist can and should be a provider of general health"

And where do you think periodontology is heading?

The future of periodontal treatment involves an integral approach, and not only focusing on dental plaque, which is what we have done until now.

Carrying out periodontal treatment is a global task, where we must change patients, their habits, their diet, their physical activity, their medical health... For this, we need more knowledge, which we still do not have.

But I am convinced that in the future the periodontist will need to be a professional who has a global approach to the health of the patient.

The future of periodontal treatment involves an integral approach

Will we even see the end of periodontal surgery as we know it today?

Periodontal surgery is still necessary, but the trend is to do it less and when it is done it is more complex and decisive. Today, even in teeth that in the past would have been considered impossible to save - hopeless teeth - it is possible to save them through periodontal treatment.

And I believe that regeneration is the future. But mainly in unconventional defects: not only infrabony defects but also suprabony defects, furcations, craters. We should change our concept of periodontology. ■



EFP: Young, but abundantly prepared

The European Federation of Periodontology (EFP), founded in 1991, is an umbrella organization of 37 national scientific societies dedicated to promoting research, education, and knowledge of science and periodontal practice. It represents more than 16,000 professionals involved in gum health in Europe, North Africa, the Middle East, Latin America, Asia, and Oceania.

The EFP will celebrate its 30th birthday in 2021. "We are young, but we are wise and mature," says the organization's president Dr Filippo Grazziani. According to this expert, "we are now witnessing a fascinating time in which periodontology and oral health are receiving more and more attention by the medical world and by society in general." In his opinion, "thanks to the work that we do every day at the EFP, there has been a change in the social perception of periodontitis, so that health-policy managers, journalists, and health institutions have started to accept the message that the health of the mouth is not only about teeth and gums, and that periodontal diseases can damage our general health and our quality of life".

IN COLLABORATION WITH:



Exposing hoaxes (II): from the risks of silver amalgam to the "toxic" effects of triclosan

The increase in fake or malicious news that questions the utility or safety of a dental treatment encourages us to expand the report published in our previous issue. We now demystify the risks of silver amalgam and the "toxic" effects of triclosan

SECTION CO-ORDINATED BY:

Mónica Muñoz
Master's degree in periodontology, Complutense University of Madrid. Certified in implantology, University of the Basque Country.

Rosa Puigmal
Master's degree in periodontology, University of Barcelona.

MORE AND MORE, hoaxes are circulating the internet and social media which target health, and which arrive at dentistry. We show here another two examples of how information that is poorly verified can create unnecessary social alarm.

The first of these hoaxes alludes to the relationship between silver-amalgam fillings and the risk of the appearance of neurotoxic problems. The second disproves the suggested relationship between triclosan (a component of many soaps and toothpastes) and cancer.

Silver fillings

Until the appearance of composites (white fillings) to restore teeth damaged by caries, silver amalgam was the restorative material of choice in almost 100% of cases.

One of the problems with the use of this material is the lack of aesthetics in the final result of the filling; another,

and more important one, is the presence of mercury and other metals in its composition. Mercury is an element that is highly contaminating to the environment and dangerous for our health, but in concentrations that are never reached with the amalgams of fillings.

Numerous studies demonstrate this. However, the European Union has prohibited the use of silver amalgam in pregnant women and in children under 15. These measures derive from signing the Minamata agreement on mercury, to protect the environment and health against the danger implied by this element.

A study published in 2016 found an increase of mercury in the blood of people who had more than eight amalgam fillings in their mouths compared with people without amalgam fillings. Nonetheless, even the highest levels were within the safe

limits for health. The US Food and Drug Administration (FDA) considers that dental amalgam which contains mercury presents the same level of safety for the population as other materials used to restore teeth. An identical position has been adopted by the General Council of Dentists in Spain.

After reviewing the available evidence, the FDA concluded that silver amalgam could release low amounts of mercury in the form of vapour that could be inhaled and absorbed by the lungs, but that this does not have negative effects for our health.

What is regulated is the way of using this restorative material to avoid creating environmental damage from the dental clinic, and there is a European directive about this. It has been proposed to eliminate its use in dental clinics in a gradual way. →

What do you need to know about triclosan?

The European Union allows a maximum concentration of triclosan of 0.3% in toothpastes and other products such as hand or body soaps, shower gels, and deodorants (not in aerosol form) and of 0.2% for mouthwashes

Triclosan is a powerful antibacterial agent and fungicide

Its use has expanded in recent years to many products: from toothpastes through hand soaps and mouthwashes to detergents and cleaning products

We can continue using toothpastes and mouthwashes with triclosan if advised by our dentist





What do you need to know about amalgam fillings?

- The European Union has prohibited the use of silver amalgam in pregnant or breastfeeding women as well as in children under 15 years of age.
- The US Food and Drug Administration considers that dental amalgam contains levels of mercury that imply the same level of safety to the population as other materials used to restore teeth.
- It is not necessary to remove amalgam fillings from our mouths.
- They should only be removed if:
 - we have caries under our amalgam filling
 - if the filling has fractured
 - for aesthetic reasons

→ The case of triclosan

In terms of the use or consumption of triclosan and its relationship with the development of cancer, this is a hoax that has been circulating on social media for a while. Triclosan is an effective antimicrobial agent present in soaps and toothpastes, among other personal-hygiene products.

Regarding its toxic effects on health, the European Union established in 2018 new rules on the use of triclosan in cosmetics. Its use is legal to a maximum concentration of 0.3% in soaps, toothpastes, compact powders, and make-up, among other products. In the case of mouthwashes, a maximum concentration of 0.2% was accepted.

And this is the maximum concentration present in toothpastes and/or mouthwashes that contain triclosan in our country.

The possible damaging effects of triclosan appear when these concentrations are exceeded. It can create bacterial resistance, as also happens with the incorrect and indiscriminate use of antibiotics in Spain.

Another of the possible undesirable effects of triclosan for general health is that it could act as a possible endocrine disrupter, provoking the reduction of certain thyroid hormones (among them, oestrogens – hence its possible risks in pregnant women). These findings come from studies in mice but are not transferable to humans for reasons of concentration and type of consumption.

Before the appearance of white fillings, silver amalgam was the restorative material of choice in almost all cases

Given this situation, some commercial companies have decided to change the formula of some of their toothpastes to remove triclosan from its composition; others, in contrast, relying on scientific studies that support it, continue using this powerful antimicrobial agent to control gingivitis. ■

Sources of the news that we read must be substantiated, especially if they have an alarmist or critical tone

NUEVO

Oral-B®

Cepíllate como un dentista

¿EL SECRETO DE UNA BOCA MÁS SANA?

ENCÍAS REVITALIZADAS Y ESMALTE FUERTE



Nuestro día a día, la dieta o la salud en general son factores que, si no cuidamos, pueden **irritar las encías o debilitar el esmalte**. Dos de los factores que mayor causa de **problemas bucodentales provocan**.

Para ayudarte, Oral-B ha desarrollado el dentrífico **Encías & Esmalte Repair**. Una pasta de dientes que ha sido probada clínicamente como la mejor de Oral-B para ayudar a **revitalizar las encías y a fortalecer el esmalte en 2 semanas***.

Todo gracias a su **tecnología ActivRepair™** que actúa de forma localizada en la línea de las encías con una doble acción sobre esmalte y encías.

AYUDA A MANTENER TU BOCA Y TU CUERPO SANO



ALIMENTACIÓN: intenta evitar la ingesta de comidas o bebidas muy ácidas que pueden debilitar y decolorar el esmalte.



ESTILO DE VIDA: cepíllate los dientes al menos dos veces al día, durante 2 minutos. Y recuerda no ejercer mucha presión para no estropear el esmalte ni dañar las encías.



SALUD: recuerda que si sufres diabetes o estás embarazada tienes mayor riesgo de desarrollar problemas de encías y esmalte.

*Testado en laboratorio sobre esmalte debilitado.

SECTION SPONSORED BY:



The colour of your gums, the mirror of your health

Have you looked at the colour of your gums? Did you know that their appearance can be related to a health problem? Healthy gums should be a clear pink or coral colour

SECTION CO-ORDINATED BY:

Olalla Argibay
Master's degree in periodontology and implants, University of Santiago de Compostela.

IF YOUR GUMS HAVE a pink colour, congratulations: this is the colour associated with good periodontal health. But if your periodontal tissue presents a whitish, reddish, or purplish aspect, you should visit your dentist because this is a symptom that there could be disease or infection.

The gum covers and protects the tissues that support the tooth: bone, cement, and periodontal ligament. The appropriate colour that indicates that a gum is healthy is pale pink, and this is related to the width of the epithelium, the degree of keratinization, the width of pigmentation, and vascularization.

However, there are certain variations in this pinkish colour that reflect periodontal health. This is because variations are produced according to the skin tone in each person because of the degree of melanotic pigmentation. Thus, in different ethnicities one can observe darker colours in the gums that are not related to the presence of disease. It should also be taken into account that some



WORDS
OF THE
EXPERTS

"The colour of your gums says a lot about your oral health; if you notice the least change, visit your periodontist"



Neus Carrió
Associate Professor of the master's degree in periodontology, International University of Catalunya.





Your gums are better with a pink colour. With any change in the colour of your gums, consult your dentist

brown or black stains on the gums are caused by tattoos from metals or the consumption of tobacco (which is a risk factor for having periodontal disease).

The threats

The accumulation of dental plaque and an inefficient brushing, incapable of removing this plaque, are the main factors that will unleash negative changes in the gum, with colour being one of the first warning signs.

The inflamed gum reddens. It is also accompanied by loss of consistency –that is to say, it becomes less firm, more variable, and bleeding will appear when brushing or even spontaneously. Fortunately, when the disease affects only the gum (gingivitis) it is a reversible process if we remedy it in time and maintain an appropriate hygiene.

Changes in women

In women, the appearance of gums throughout their lives varies in relation to hormonal changes as well as in the state of their health. From adolescence, the increase of oestrogens and progesterone will influence the response of the gums, which become more sensitive to irritation and →

Lourdes Nóvoa
Collaborating professor of the master's degree in periodontology, University of Santiago de Compostela.

“You must pay attention to the colour of the gums: they provide information on the state of oral health and can even provide a warning of other more serious diseases”



Pedro Almiñana
Master's degree in Periodontology and Osseointegration, University of Valencia.

“A change in the colour of the gums can be the first warning sign of a periodontal problem”

What colour are your gums

PALE PINK:
Healthy gums

RED:
menopause:
gum,
atrophied,
red through
inflammation/
flaking
gingivitis

WHITE:
infecciones
por hongos,
leucoplasias,
liquenes

DARK:
pigmentation or
amalgam tattoo
etc.

→ there is a greater tendency towards inflammation and bleeding. These hormones also produce changes in the composition of dental plaque. This situation is also reproduced during pregnancy and the menopause.

During the menopause, the gum can be more pallid, brilliant, and dry, as there is a lessening of the secretion of the salivary glands. It can also encourage the appearance of diseases such as flaking gingivitis, a condition that involves an intense red colour of the gums, sometimes accompanied by intense pain and flaking. In some cases, it is associated with more serious diseases, such as lichens and pemphigus.

For this reason, its early diagnosis is very important.

The appearance of gums in women varies throughout their lives, in relation to hormonal changes

Be careful with white marks

White marks on gums are produced by an accumulation of dental plaque, cankers, and fungal yeast infections. These fungal infections can be treated with medications and antiseptics. The presence of white marks can allow suggest the presence of more serious lesions, such as leucoplakia.

It is important to visit your dentist for diagnosis of any change in the colour of your gums. The sooner they are evaluated and treated, the better. ■

Tobacco, enemy number 1 of healthy gums

TOBACCO IS A RISK FACTOR for the progression of periodontitis and implant diseases. Tobacco use affects the mouth not only because of the thousands of toxic chemicals it contains (lead, arsenic, ammonia...; according to the American Cancer Society, more than 70 substances that include tobacco are carcinogenic) but also by the heat generated by combustion.

Smokers have between 2.5 and 6 times more risk of diseases in the tissues surrounding and supporting the tooth than non-smokers. This effect is dose-dependent, that is, the more consumption the greater destruction. The gums of smokers usually present dark spots. The increase in gingival pigmentation in smokers is estimated at 21.5%, and its intensity is related to the number of cigarettes.

But, in addition, tobacco masks the presence of periodontal disease: smokers have less bleeding, fewer signs of inflammation, and the gum is usually thicker and purplish.

The influence of the environment is evident. The appearance of stains on the gums of children with smoking parents has been demonstrated, as well as a higher prevalence of dark spots in adolescents exposed to tobacco environments.

In addition, quitting smoking has a positive impact at the periodontal level. After 4 to 6 weeks of quitting smoking, the vascularization of the gum begins to recover, which would facilitate, among other things, an earlier diagnosis of periodontal diseases and, therefore, a better response to the different treatments. At the implantological level, abandoning the smoking habit decreases the risk of failure of implant therapy, as well as reduces the risk of periimplant disease.

Pregnancy and gums

In general, the variation in hormone levels experienced in different stages and circumstances of life produces changes in periodontal tissues. Pregnancy stands out as the period in a woman's life in which substantial changes occur in progesterone and estrogen, mostly at the end of the third trimester, reaching blood values 10 to 30 times higher than those detected during the normal menstrual cycle.

Pregnancy gingivitis does not differ in appearance from plaque gingivitis: it results in redness, loss of firmness and appearance of bleeding. The main effect on the gum is an increase in gingival inflammation, although no greater amount of bacterial plaque is observed.

It is very important before pregnancy to visit the dentist to check and evaluate your mouth, if there is health before pregnancy the changes in the tissues will be minimal.

GLOSSARY

1. **Keratinization:** process of forming keratin, a protein rich in sulphur that constitutes a fundamental part of the most external layers of the skin and the gums.
2. **Vascularization:** formation of blood vessels and capillaries in bodily tissue.
3. **Melanotic pigmentation:** lesion or dark or brown stain; tends to be benign.
4. **Lichen and Pemphigus:** disease of the skin and/or gums.
5. **Yeast infection:** type of fungus that can affect different parts of the body, including the mouth.
6. **Leukoplasia:** potentially malignant oral lesion, mainly white and which does not come off when scraped.



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Canker sores in the mouth: what they are and how to combat?

SECTION CO-ORDINATED BY:

Desirée Abellán
Associate professor, Master's
degree in periodontology,
UIG Barcelona

CANKERS are superficial benign lesions in the form of ulcers or sores that appear on the soft tissues of the mouth or at the base of the gums. They have a whitish or yellowish colour and are surrounded by a reddish and shiny area. They are not contagious and can sometimes produce irritation and complicate everyday activities such as speaking, eating, and brushing teeth. Sometimes they can generate a tingling or hot feeling a few days before they appear.

Tips

Recurrent aphthous stomatitis tends to appear in pre-adolescents, adolescents, and young adults, with a tendency to appear less often as people become older. There are different clinical forms, including most importantly – because of their greater frequency – minor and major aphthous ulcers and herpetiform aphthous stomatitis.

Minor aphthous ulcers are the most common (75 to 85% of cases) and are characterized by being the smallest, with a round or oval form, clearly defined, white in colour with a red border, shallow, and which disappear after one or two weeks without leaving scars. They tend to be found in the mucosa of the lip, under the tongue, or on the edges of the tongue.



Oral cankers are ulcers that arise in the mucosa of the mouth and are one of the most common and annoying oral diseases. You will find here some advice on how to avoid and treat them.

Major aphthous ulcers are the biggest and deepest. They are round, with irregular borders, bigger than one centimetre in size, and can be very painful. They are less common than the minor aphthous ulcers (representing 10 to 15% of cases) and they take longer to cure: they can take five or six weeks to disappear, sometimes leaving fibrous scars. Their base is clean and of a yellowish white colour.

Herpetiform aphthous stomatitis represents a small percentage (5 to 10%) of cases of recurrent aphthous stomatitis. It manifests with the appearance of very small, but very numerous, ulcers (1-3 millimetres), which tend to join each other in clusters and form bigger ulcers with irregular

They are not contagious, they are sometimes painful, and they can sometimes complicate everyday activities

edges. They are found in any part of the oral mucosa. They tend to appear in older age and especially affect women.

Do not forget

Cankers or aphthous ulcers are a common form of mouth ulcer. Although in most cases the cause cannot be determined, there is a certain genetic predisposition. There are some systemic conditions that produce ulcers similar to aphthous ulcers and which can be confused with them,

Triggering factors

THE TRIGGERS FOR their appearance can be:

- Traumas (dental manipulations, accidental bites...).
- Stressful situations or lack of sleep.
- Food such as chocolate, dried fruit, acidic drinks/foods, among others,
- Giving up smoking.
- Hormonal changes, most frequent during the premenstrual phase.
- Haematological changes (deficiency of iron and folic acid) or lack of vitamins and minerals (vitamin B1, B2, B6, B12, C, and zinc).

such as certain viral infections (herpes simplex or herpes zoster), lupus, Behçet's disease, coeliac disease, Crohn's disease, ulcerative colitis, cyclical neutropenia, and even oral cancer. Because of this, it is necessary to visit the specialist to rule out these diseases.

In those cases where the ulcers are larger in size, appear recurrently, take more than two or three weeks to heal, where there is fever or any

Herpetiform aphthous stomatitis tends to appear in older age and particularly affects women

systemic symptom, visiting the dentist is recommended for an evaluation and differential diagnosis with other diseases.

How are they treated?

Treatments should be individualized, as there is no definitive pharmacological cure. Several therapeutic modalities have been shown to be effective for reducing pain and inflammation and, at the same time, increasing the rate of re-epithelization of the lesions.

These treatments, as well as being focused on accelerating the process of wound healing, are also centred on preventing recurrence of the ulcers.

A CANKER OR ULCER IN ANY PART OF THE MOUTH THAT DOES NOT HEAL ITSELF IN TWO TO THREE WEEKS MUST BE CHECKED BY YOUR DENTIST TO RULE OUT A MORE SERIOUS PROBLEM

Complete healing tends to occur seven to 10 days after their appearance, without leaving scars. Although sometimes healing can take a bit longer if the lesion is associated with a contact zone or an area of constant friction.

A gradual therapeutic management is recommended, establishing appropriate expectations for the patient and investigating the possible underlying causes. It is reasonable to start topical medication – and move towards systemic medication if this is necessary – with the aim of reducing the relapse rate and the severity of the outbreaks.

In a second stage of treatment it is necessary to evaluate and control, in cases where this is appropriate, if there is any type of nutritional or haematological deficiency, as well as to analyse possible allergic reactions to chemical products (sodium lauryl sulphate in toothpastes or medications such as flurbiprofen) or foodstuffs. ■

How can they be prevented?

THE FREQUENCY of the appearance of ulcers can be reduced if the following advice is followed

- Avoid those foods that can irritate the mouth. It is advisable to avoid very hot or spicy foods, reduce the consumption of dried fruits, nuts, tomatoes, and acidic fruits.
- Avoid any foodstuff to which you are sensitive or allergic.
- Maintain a balanced diet. To avoid nutritional deficiencies of vitamins and minerals it is advisable to eat a lot of fruit, vegetables, and whole grains.
- If you wear orthodontic devices, ask your dentist about orthodontic wax to protect the lips and the interior of the mucosa.
- If you wear other dental apparatus such as a removable prosthesis, have it checked as often as recommended by your trusted dental professional so that it is in a good condition and as well-adjusted as possible.
- If there is a broken or worn tooth edge, it is advisable that your dentist checks it and performs a polishing or whichever treatment is considered necessary to improve the situation.
- Try to reduce stress (the appearance of ulcers seems to be related to this condition) through relaxation techniques that help channel anxiety.

WORDS
OF THE
EXPERTS

“If a mouth ulcer takes more than 3 weeks to heal, you should go to the dentist for an evaluation and differential diagnosis with other diseases”



José Vicente Bagán

Dean of oral medicine at the University of Valencia.

Presentation of the report on “Oral health in the pregnant woman”

SECTION COORDINATED BY:

Mónica Muñoz
Master's degree in
periodontology, Complutense
University of Madrid.
Certified in implantology,
University of the Basque
Country.

EARLY CARE OF THE ORAL health of the mother would avoid, among other diseases, the negative consequences for pregnancy outcomes (premature birth and low birth weight) that can be involved in oral diseases such as periodontitis. Also, carrying out the necessary periodontal treatment before pregnancy provides great advantages compared with treatment carried out during the period of gestation, as lengthier or more complete treatments can be performed and, furthermore, it avoids the stress that is involved in any dental treatment of the pregnant woman.

A recommendable report and with recommendations

These are some of the main conclusions and recommendations included in a report developed by experts of the joint working group of the Spanish Society of Periodontology (SEPA) and the Spanish Society of Gynaecology and Obstetrics (SEGO), supported by the collaboration of Oral-B. This report describes the main effects that pregnancy has on oral health, giving rise to conditions

Informe Salud bucal en la mujer embarazada.



Women should become pregnant in the best possible state of health, and this includes oral health too. They should therefore prepare themselves before pregnancy by visiting the dental practice for the diagnosis and possible treatment of periodontal diseases-

In Spain, the oral situation of the pregnant woman is improving, but still the figures for the prevalence of gingivitis and periodontitis in this population are high

such as pregnancy gingivitis and pyogenic granuloma, increased incidence of caries, and aggravating existing periodontitis. It also picks out the effects of periodontal disease on pregnancy. The document further provides a series of recommendations for professionals on periodontal treatment in pregnant women (for example, what to do and when to do it if women have periodontitis).

This report, as well as performing a significant and updated review of the topic, provides key messages aimed both at women and at the professionals who will treat them (obstetricians and oral-health professionals).



FROM LEFT TO RIGHT: **Alicia Herrero**, Associate professor of periodontology, UCM; **María Rioboo**, associate professor of periodontology, UCM; **Ana Carrillo de Albornoz**, associate professor of periodontology, UCM; **Isabel Campo**, SEGO representative on the SEPA-SEGO working group and gynaecologist of the San Carlo Hospital Clinic; and **Isabel Santa Cruz**, coordinator of the SEPA-SEGO working group and master's degree in periodontology and implants, UCM.

Alicia Herrero

“During pregnancy an increase in the severity of gingivitis is observed. And pregnancy also makes a woman more susceptible to developing granuloma gravidarum, the appearance and/or worsening of periodontitis, and the start or aggravation of caries”

María Rioboo

“This report is a compendium of the most important data about the latest research that helps us focus in the most prudent and secure way on the handling of pregnant women or those who are planning to have children”

Ana Carrillo de Albornoz

“The main effect of pregnancy on the oral cavity is an increase in gingival inflammation. The tissue is more inclined to become inflamed and to suffer variations in its bacterial composition”

Isabel Campo

“Oral hygiene habits should be an additional part of preventive and therapeutic medical measures in the management of pregnant women, even in the pre-seasonal stage”

Isabel Santa Cruz

“It is fundamental that women reach pregnancy in the best conditions of oral health, but it should also be known that oral treatments can be performed with complete safety during pregnancy, with the appropriate precautions”

The SEPA-SEGO working group enjoys the collaboration of:



Green-tea chewing gum: is it good for the gums?

SECTION CO-ORDINATED BY:

M^a Cristina Serrano
Master's degree
in periodontology
and implants.
Complutense
University of Madrid

IN RECENT YEARS emphasis has been placed on the benefits of sugar-free chewing gum and gum with xylitol as part of personal oral hygiene, above all in the prevention of caries. Now the advantages offered by green-tea chewing gum are also being talked about.

Green tea is a foodstuff that has become fashionable, as its composition presents a multitude of antioxidant substances known as catechins. The most important of these is epigallocatequin-3-gallate, which presents a very interesting characteristic: it is able to stay in the saliva for up to 24 hours after its ingestion via a cup of green tea. Even more importantly, it remains in a concentration that is effective as an antioxidant and as an agent that is anti-inflammatory (it reduces proinflammatory salivary cytokines)

and anti-bacterial (it is able to inhibit *P. gingivalis*, one of the pathogens that causes periodontal disease). This has led scientists to study its possibilities, introducing it as an active agent in chewing gum.

Accordingly, a recent study has evaluated the effect of the use of chewing gum with green tea compared to a placebo gum, over three weeks, in reducing periodontal inflammation. At the end of this period, the individuals who has used the chewing gum with green tea had reduced their levels of dental plaque, bleeding on probing, and interleukin-1 (a strong proinflammatory factor) in saliva. The study's authors concluded that green tea in chewing gums could help in the treatment of gingival inflammation. Of course, new studies that confirm this finding are needed.



It is no substitute for brushing teeth, but chewing gum after eating stimulates the production of saliva that can neutralize acids and help reduce the occurrence of caries.

Oxidative stress, a threat to periodontal health

So-called oxidative stress, a process of cellular deterioration that is characterized by an increased presence of free radicals in the organism, is associated with cardiovascular diseases, diabetes, and even cancer. It is now known that it has an effect on the health of the gums.

Oxidative stress is the situation produced in the organism when the balance between pro-oxidant substances (the so-called free radicals) and antioxidants. In our metabolism, free radicals are constantly being produced, and they are important for destroying bacteria – but only when they are under control. When they increase above the antioxidant defences, oxidative stress appears, related to the triggering of an anomalous inflammatory response, which will be related to many diseases. Smoking, stress, and a diet rich in refined carbohydrates and saturated fats are examples of substances that produce an increase in free radicals.

Recent studies have shown that a diet rich in sugars and saturated fats is not only related to an increased risk of the appearance of caries but also of an increased presence of gingival inflammation. In fact, it has been observed that, using the same toothbrushing technique, people subject to this type of diet have greater indices of bleeding and gingival inflammation. In contrast, people who daily ingest at least five portions of fruit and vegetables (with great antioxidant capacity) show a lesser degree of gingival inflammation, despite using similar brushing techniques.

Love your pets, but don't kiss them



We all love our pets and many of us consider them to be members of the family. So much so that some people even give them kisses on the mouth to show their affection. If you are one of those people, it is important to keep certain facts in mind.

YOUR PET'S MOUTH, regardless of how clean it is, is full of germs. They use their mouths for many things that you perhaps do think about when deciding to give them those affectionate kisses. Their mouths lick the kitchen floor, come into contact with dead birds, and even clean the traces of their own faeces. These germs, if you kiss them on the mouth, will certainly pass to your own mouth.

On top of that, one should keep in mind that dogs, cats, and humans have a microbiome – or bacterial ensemble – that is very similar in many respects. For example, it has been seen that they share various types of pathogens related to periodontal disease. In fact, in several microbiological studies the same bacterial strain – for example

Your pet's mouth, regardless of how clean you keep it, is full of germs

Tannerella forsythia – has been observed in pets and in their owners, even leading to the hypothesis that cats can be a reservoir of this pathogen and can transmit it to their owners. Other studies, however, speculate that although these pathogens can be transmitted they do not have to develop in humans because of the difference in pH, for example.

Even so, dentists and vets recommend daily brushing of pets' teeth, avoiding a diet of soft foods, and performing dental cleaning when necessary.

One of the best ways to protect yourself from diseases is to wash your hands after touching, feeding, or cleaning your pets and, above all, remembering that all experts agree that affection towards your pets can be shown in other ways. That is to say, loving our cats and dogs does not have to have limits. Perhaps the mouth is a natural barrier for this affection towards pets.

The antioxidant effect of melatonin could protect gum health

SECTION CO-ORDINATED BY:

M^a Cristina Serrano
Master's degree
in periodontology
and implants.
Complutense
University of Madrid

MELATONIN is a hormone secreted by the pineal gland (a small gland located in the brain), whose most important function is the regulation of the cycles of sleep and wakefulness, which is why many people with insomnia take it as a supplement to improve the quality of their sleep. However, melatonin has many other functions that are less known, including anti-inflammatory, antioxidant, and neuroprotective properties.

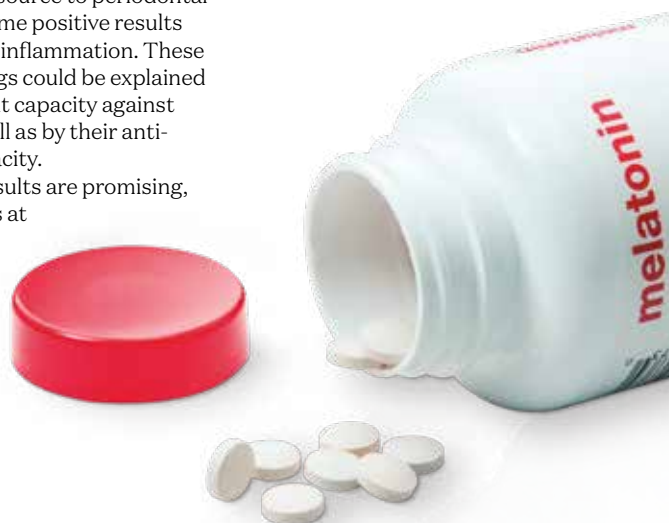
In terms of gum health, it has been observed that patients with gum disease have lower levels of melatonin, as well as of other antioxidants, in saliva. This has led to studies that have tested the use of melatonin topically or as a supplement as an additional resource to periodontal treatment, with some positive results in the reduction of inflammation. These satisfactory findings could be explained by their antioxidant capacity against free radicals, as well as by their anti-inflammatory capacity.

Although the results are promising, current evidence is at a very early stage, as the studies that have been carried out have been short-term and the safety

Patients with periodontal disease have lower levels of melatonin, and of other antioxidants, in their saliva

of the continued use of melatonin supplements over long periods of time is not yet known.

Another option would be to increase the intake of foodstuffs rich in melatonin (such as apples) or those which have tryptophan (such as eggs) which is the precursor to various metabolites, including melatonin.



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IF YOU TAKE CARE OF **THEIR GUMS**
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Take care of your gums

It is important to **keep your gums healthy** to be able to enjoy life to the full. To do this, **brush your teeth twice a day** and use **dental floss** and a **mouthwash**.

Two times a day



Brush your gums and teeth with toothpaste.



Use dental floss or interdental brush.



Reinforce your hygiene with mouthwash.

Every 3 months



Change your tooth brush.



Visit your trusted dentist or periodontist every six months to check your oral health.

WHAT ARE GUM DISEASES?

GINGIVITIS

Superficial inflammation of the gum. Bleeding is the main warning sign. If not treated appropriately, it can lead to periodontitis.

PERIODONTITIS

Profound infection of the gum and the other tissues that support the tooth. It can provoke the loss of teeth and has an impact on general health: it increases the risk of cardiovascular disease, diabetes, and premature birth.

WARNING SIGNS

- Bleeding or reddening of the gums
- Bad breath
- Hypersensitivity to cold
- Mobility-separation of teeth
- Longer teeth
- Loss of teeth

RISK FACTORS

- Tobacco
- Stress
- General diseases: diabetes, osteoporosis, HIV, herpes, transplants, etc....
- Hormonal changes
- Hormonal antecedents