

## Patient centric solution for smart and sustainable healthcare

### WP3: Dissemination and exploitation

#### D 3.2: Communication & dissemination of results towards stakeholders and user communities

Project acronym	<b>ACESO</b>
Project number	<b>AAL-2019-6-137-ACESO</b>
Project full name	<b>Patient centric solution for smart and sustainable healthcare</b>
Dissemination level	Public
Type of deliverable	Report
Contractual Date of Delivery	M18
Actual Date of Delivery	M18
Deliverable Number	D3.2a
Deliverable Name	Communication & dissemination of results towards stakeholders and user communities
Workpackage / Task	WP3/T3.2
Work package responsible / Task responsible	SPH/CSW
Number of Pages	1616
Contributors	CITST, SPH, LSDM, JUMC, MKS, EXYS, CSW
Version	4

**Table of Contents**

1	Abstract	6
2	General principles and approaches in ACESO	6
1.1.	Changes over time	7
1.2.	Recognition of needs	7
1.3.	Evaluation of options	8
1.4.	Resolution of concerns	8
1.5.	Decision	8
1.6.	Implementation	8
3	Dissemination channels	9
4	Communication to stakeholders	11
5	Dissemination and communication events	12
6	Conclusions	15
7	Document History	16
8	References	16

**ABBREVIATIONS**

AAL	Active Assisted Living
ACESO	Patient centric solution for smart and sustainable healthcare
CTA	Call to Action

**LIST OF FIGURES**

Figure 1. The Buying Cycle of the Users. ....6  
Figure 2. ACESO dissemination channels.....9  
Figure 3. Build-in analytics in Wix.com. ....9  
Figure 4. Blog articles posted on ACESO related subjects through three communication channels.  
..... 10  
Figure 5. Dissemination materials. .... 10  
Figure 6. ACESO participation at the European Week of Active and Healthy Ageing 2021..... 11  
Figure 7. Seminar for dentists organized in Romania with the participation of LSDM. .... 11  
Figure 8. FIT Europe seminar in Milano. .... 12

**LIST OF TABLES**

Table 1. Dissemination at professional and scientific events ..... 12

## 1 Abstract

This deliverable starts by presenting the communication strategy planned for reaching the end-users of the ACESO solution. In ACESO, we are relying on the Buying Cycle from Huthwaite International which is based on the psychology of human decision. The Buying Cycle was designed after close observation of the behavior people adopt when they are making big decisions. The second part of the deliverable is presenting the ACESO dissemination channels and is detailing their implementation which comprises the ACESO webpage, blogs, events (past and upcoming), LinkedIn page for professionals, Facebook page for primary users, etc. A list of dissemination events is also presented in the end of the deliverables. Annex 1 is presenting the ACESO blog articles prepared by its consortium members.

## 2 General principles and approaches in ACESO

The aim is to develop a communication and marketing plan on a national level and international level such as to reach not only primary and secondary users but also professionals, relevant industrial players and user groups. Communication is essential for a successful marketing plan. In developing our communication strategy, we refer to the model of the Buying Cycle from Huthwaite International which is based on the psychology of human decision.<sup>1</sup> The Buying Cycle (see Figure 1) was designed after close observation of the behavior people adopt when they are making big decisions.

Central to any successful communication strategy, is an understanding of user behavior. Any strategy that ignores or fails to adequately take account of user behavior, or more specifically how they make decisions, buy, is likely to fail. Users go through predictable physiological phases when making decisions and by understanding these, ACESO can adopt the most effective strategy to help influence the decision.

In the description below we describe the various stages and what it means to the ACESO project and the users.

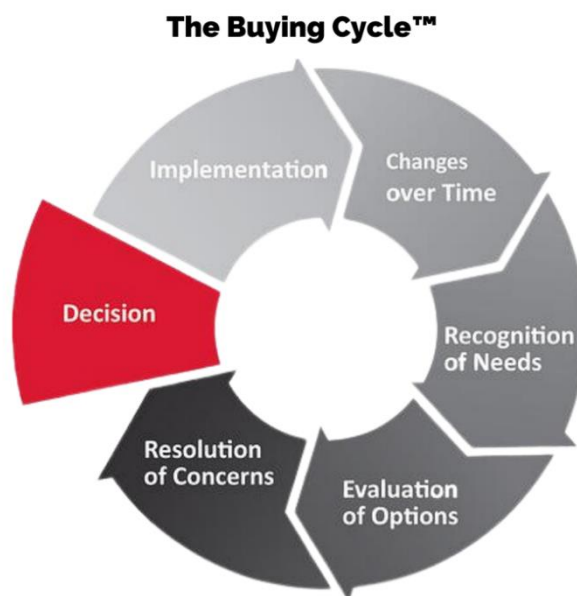


Figure 1. The Buying Cycle of the Users.

## 1.1. Changes over time

At this stage, potential users may be quite happy with the way things are and may not be contemplating making an investment in any changes. However, changes are happening even outside the users' control and they can trigger their interest.

Key topics to be considered:

- Aging population
- The growing importance of oral hygiene
- The connection between oral hygiene and other diseases
- Smart health technological boom (Connectedness)
- AI in health care
- Increasing health consciousness
- Growth of silver economy

Call to Action (CTA)

- Register for newsletter
- Register to member pages (end-user, specialist)
- Open specialist profile for contacting
- Spread the word

## 1.2. Recognition of needs

As users become aware of changes in their world, they may become dissatisfied. The changes can be a result of technology, new regulations, activity by someone in their environment, etc. In short, changes are considered to be anything which leads the users to question the way things are and how they are done now.

At this stage, users start to realize that they have new needs - initially these will be areas where they are unhappy or dissatisfied. As these needs develop and the sense of dissatisfaction deepens, the users begin to identify a desire to do things differently and take advantage of new opportunities presented by alternative suppliers or new technology.

- Identified Problems:
  - Hyposalivation
  - Destructive oral processes
  - Negative consequences of losing teeth
  - Diagnosed diseases
  - Lack of data
  - Lack of integrative solutions
  - No regular connection to specialists
- Identified Needs:
  - Maintain good oral and overall health
  - Live longer, healthier
  - Monitor activity and health, get feedback
  - Early intervention when necessary

CALL-TO ACTION (CTA):

- Contact selected specialist
- Download guide
- Spread the word

### 1.3. Evaluation of options

Having defined their requirements, users move on to the process of selecting a way to meet their needs. The users select an external supplier, product or service which they believe best meets their requirements.

#### CALL-TO ACTION (CTA)

- Download product specification leaflet
- Contact
- Spread the word

### 1.4. Resolution of concerns

Prior to making a final decision, the users may raise issues which are worrying them. Often these late cycle concerns seem to come out of the blue, but research shows that successful organizations anticipate these issues and seek to help the users to identify solutions as early as possible.

#### CALL-TO ACTION (CTA)

- Download case studies
- Contact ACESO representative

### 1.5. Decision

Alongside the decision-making process is the separate, but linked activity of negotiating a deal. True negotiation begins when the users recognize that the ACESO solution meets their needs but are looking to negotiate the selling/buying terms.

#### CALL-TO ACTION (CTA)

- Sign standard agreements/consent
- Participate in the studies

### 1.6. Implementation

Once the purchase is made between user and ACESO, research shows that the implementation period should not be neglected. Implementation is where successful organizations stay in touch to ensure fulfilment of the contract and the initial stages, meet or even exceed, user expectations.

#### CALL-TO ACTION (CTA)

- Keep using ACESO
- Share experience
- Celebrate success



### 3 Dissemination channels

The interlinked channels for dissemination and communication with the ACESO users are presented schematically in Figure 2.

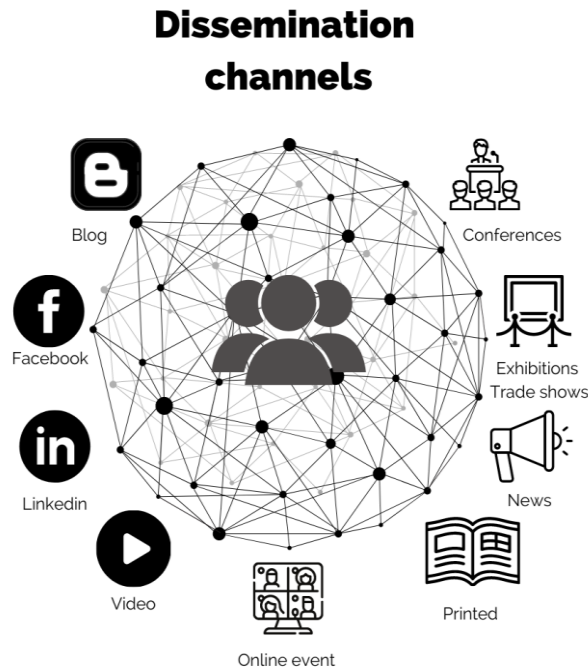


Figure 2. ACESO dissemination channels.

The basis of the communication is the webpage of ACESO: [www.aal-aceso.eu](http://www.aal-aceso.eu). It is developed and hosted by Wix.com which is a website builder tuned for small businesses, including build-in analytics as shown in Figure 3.

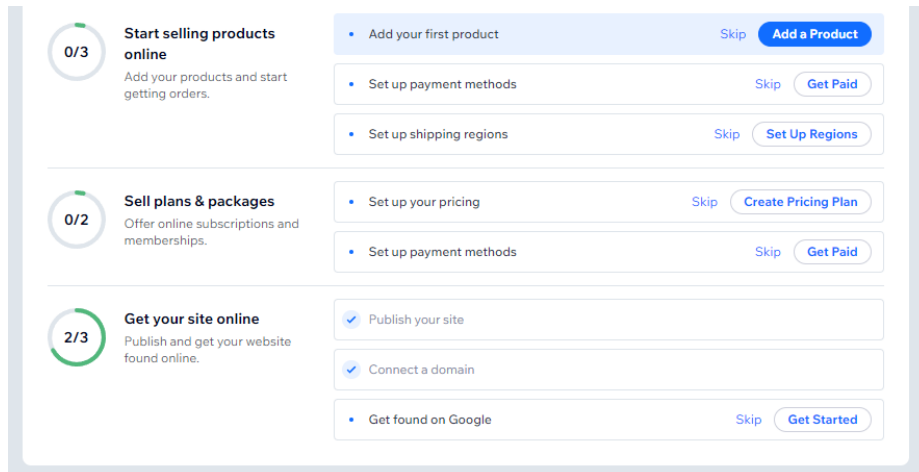


Figure 3. Build-in analytics in Wix.com.

One of the main sources of fresh content related to the various stages of the earlier mentioned Buying Cycle, is the blog: [www.aal-aceso.eu/blog](http://www.aal-aceso.eu/blog). Depending on the specific needs of the market related to specific languages, the blogs can be available in various languages of the consortium. (e.g., EN, DE, IT, PL, RO, HU, SL). There are several blog materials prepared in advance by the consortium member and scheduled for release bi-monthly (see Figure 4). Annex 1 contains the blog articles prepared so far.

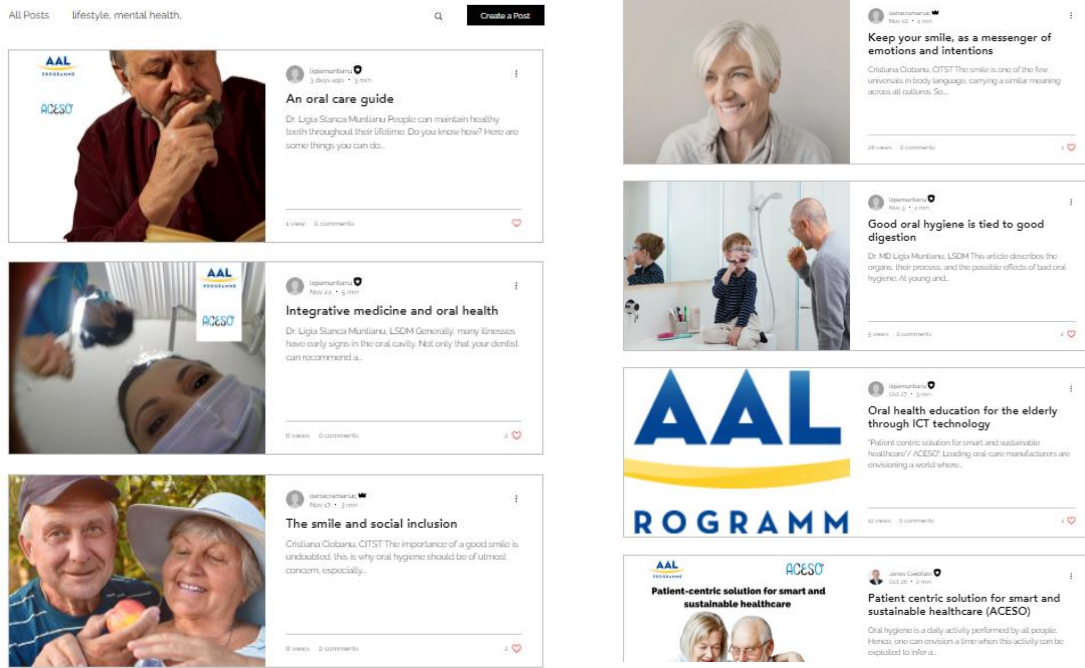


Figure 4. Blog articles posted on ACESO related subjects through three communication channels.

We established a LinkedIn page for the *professional buyers and secondary users*.<sup>2</sup> Blog posts appearing on the ACESO webpage are automatically published also on this channel. To target *primary users*, a Facebook page was established.<sup>3</sup> As videos are becoming more and more important, we plan to publish short videos for easier understanding of the messages. Depending on the pandemic, online and offline events are planned and gradually published on the web: <https://www.aal-aceso.eu/all-events>.

Printed material has been prepared as personalized packages which contain the presentation of ACESO as well as personalized pencils and key chains (see Figure 5).

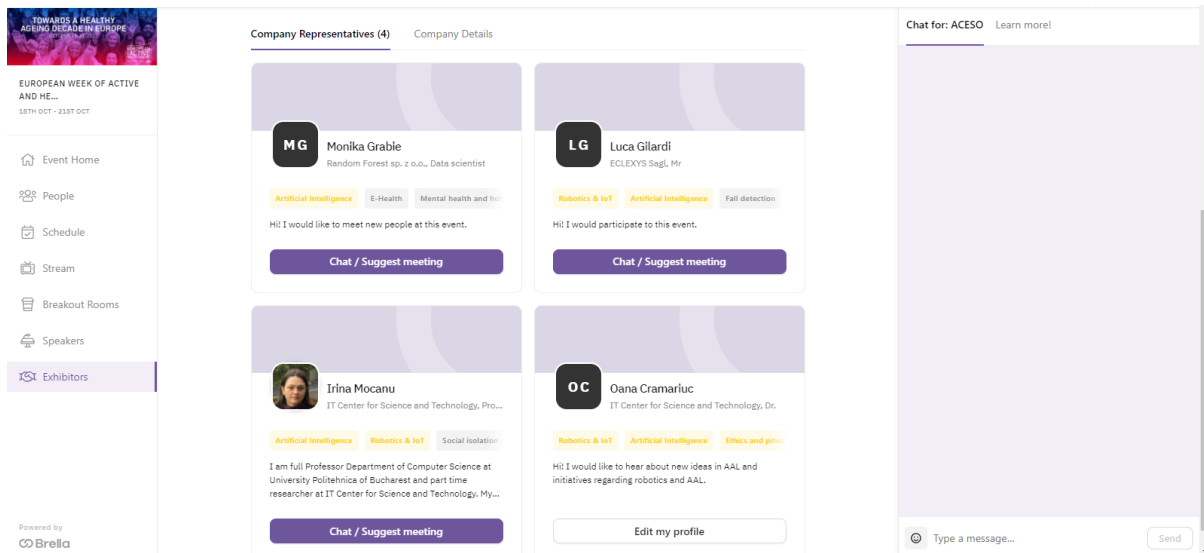


Figure 5. Dissemination materials.

## 4 Communication to stakeholders

The following communication events towards tertiary stakeholders have been organized within ACESO.

- Presentation of the ACESO Project, the second edition of the European Week of Active and Healthy Ageing 2021 took place between 18 and 22 October 2021 online. All ACESO consortium partners have participated at this event and have attended the ACESO online booth showcasing the ACESO project and future products.



**Figure 6. ACESO participation at the European Week of Active and Healthy Ageing 2021.**

- LSDM has presented and demonstrated the ACESO solution within a seminar organized on the 27<sup>th</sup> of November 2021 by a private clinic for dentists in Brasov, Romania.



**Figure 7. Seminar for dentists organized in Romania with the participation of LSDM.**

- LSDM has presented and demonstrated the ACESO solution to the fifth-year students at the University of Medicine and Pharmacy "Carol Davila" Bucharest on the 21<sup>st</sup> of November.

- JUMC has presented and demonstrated the ACESO solution to the medical students at the Jagiellonian University Medical College.
- CITST has presented the ACESO solution with the FIT Europe Seminar "SEMINAR 3 - PRESERVING PRIVACY AND TRUST IN IOT" which was organized in Milan as part of the FitEurope ERASMUS+ project.<sup>4</sup>



Figure 8. FIT Europe seminar in Milano.

- Two face-to-face meetings organized by EXYS with the representatives of the Swiss Alzheimer Organization.

## 5 Dissemination and communication events

Table 1 is presenting the communication and dissemination events organized as part of the dissemination in ACESO. It comprises also scientific dissemination which will be separated at a later stage and included in D3.4.

Table 1. Dissemination at professional and scientific events.

Project participant responsible	Activity	Date	Medium and reference	Indicative coverage
CSW (HU)	Article in the Journal of Geriatrics	H1, H2, 2022	<a href="https://idosgyogyaszat.hu/folyoirat">https://idosgyogyaszat.hu/folyoirat</a>	500
LSDM (RO)	Seminar organized by a private clinic for dentists, Brasov, Romania	27 November	NA	12 dentists

REPORT

LSDM (RO)	Presentation of the ACESO Project to the fifth-year students at the University of Medicine and Pharmacy "Carol Davila" Bucharest	21 November 2021	NA	~ 100 students
JUMC (PL)	Presentation of the ACESO Project to the Students of Medicine and Students of Dentistry, JUMC	May 2021, October 2021	NA	circa 50
CITST (RO)	FIT Europe Seminar "SEMINAR 3 - PRESERVING PRIVACY AND TRUST IN IOT" within an ERASMUS+ event <a href="https://fit-europe.eu/seminars/seminar3.html">https://fit-europe.eu/seminars/seminar3.html</a> (presentation)	17 November	Presentation	36 students from 4 European Universities, 10 researchers and professors
CITST (RO)	Irina Mocanu, Razvan Smadu, Marius Dragoi, Andrei Mocanu, Oana Craamariuc: Testing Federated Learning on Health and Wellbeing Data, EHB 2021, 18-19 Noiembrie 2021, Iasi (ISI Proceedings).	18-19 November 2021	Article, Presentation	100
EXYS (CH)	Face-to-face meeting with responsables of the Swiss Alzheimer Organisation, to present the ACESO platform	October 2021	Physical meeting	N/A
CITST (RO)	Integrated innovative care for AAL: body-, mental- and oral-care, BeHealth, 26-28 October 2021, panel 6 "SHAFE   NET4Age- Friendly; UN recognition for pressure relieve on Health and Care Systems during and after the COVID-19 pandemic".	26-28 October 2021	Presentation	60
ALL CONSORTIUM PARTNERS	Presentation of the ACESO Project, the second edition of the European Week of Active and Healthy Ageing 2021 took place between 18 and 22 October 2021 online	18 and 22 October 2021	Online Booth	300

REPORT

JUMC (PL), RFC (PL), CITST (RO), EXYS (CH), LSDM (RO)	I. Perera, L. Muntianu, I. Mocanu, E. Klimek, M. Fedyk-Łukasik, Ł. Malicki, A. Consoli, B. Gryglewska, K. Piotrowicz, J. Gaşowski, Patient centric solution for smart and sustainable healthcare - (ACESO) project, rationale and protocol XVII Congress of the EuGMS, Hybrid (online/Athens, Greece)	October 11-13, 2021	Poster and Presentation	1500
JUMC (PL), CITST (RO), LSDM (RO)	B. Gryglewska, E. Klimek, I. Perera, M. Fedyk-Łukasik, K. Piotrowicz, I. Mocanu, L. Muntianu, J. Gaşowski, Teledentistry and oral health in older adults – aspects for implementation of the “Patient centric solution for smart and sustainable healthcare (ACESO)” project.	submitted	Review article	1000
MKS (SL), LSDM (RO), JUMC (PL), CITST (RO)	N. Samar Brencic, L.A. Stanca Muntianu, K. Piotrowicz, I. Mocanu, D. Rudel, I.G. Lupu, ORAL HEALTH EDUCATION FOR ELDERLY THROUGH ICT TECHNOLOGY, EduLearn 2021	Mallorca, Spain, 3 July 2021	Article and Presentation	100
EXYS (CH)	Meeting with potential clients, in Lausanne (CH)	8-9 June 2021	NA	5
MKS (SL)	ISFTEH International Conference - Japan <a href="https://www.isfteh.org/events/category/isfteh-international-conferences">https://www.isfteh.org/events/category/isfteh-international-conferences</a>	Conference 11 February 2021	Presentation and article	250
MKS (SL)	Open forum of Slovenia Digital Coalition, Digitalization of Slovenia today for tomorrow - <a href="https://www.digitalna.si/digitalna-koalicija/forum-slovenske-digitalne-koalicije">https://www.digitalna.si/digitalna-koalicija/forum-slovenske-digitalne-koalicije</a>	26.11.2020	Presentation	150
MKS (SL)	N. Samar Brenčič, D. Rudel, The importance of standards for quality telehealth services (in COVID-19 pandemics); SDMI - 2020, Slovenia	5.11.2020	Presentation and article	70

	<a href="https://sdmi.si/files/strokovna_srecaanja/zbornik%20MI2020.pdf">https://sdmi.si/files/strokovna_srecaanja/zbornik%20MI2020.pdf</a>			
CITST (RO)	How Assisted Living can Improve Quality of Life, Security for Healthy Ageing (The Hospital from Home), within BeHEALTH 2020: International Online Event in Healthcare (27-29 October 2020).  <a href="https://international-brokerage-event-in-healthcare.b2match.io/agenda">https://international-brokerage-event-in-healthcare.b2match.io/agenda</a>	28/10 /2020	Presentation	53
CITST (RO)	Webinar during the Erasmus+ Days during which ACESO was presented along with several projects related to ICT and elderly	15/10 /2020	Presentation	20
MKS (SL)	Information Society International Multiconference - Institute of Jozef Stefan, Ljubljana, Slovenia.  <a href="https://is.ijs.si/?lang=en">https://is.ijs.si/?lang=en</a>	7.10.2020	Presentation and article	50
MKS (SL)	Other contributions to National policy for Information society and digitalization  Webinars, Workshops and meetings during which ACESO was presented along with several projects related to ICT and elderly and related issues.	May - December 2020	Presentation and contributions	150
MKS (SL)	Other contribution in cooperation with national bodies (Ministry of Health and Ministry of public administration) for Digitalization (OECD workshops)  Webinars, Workshops and meetings during which ACESO was presented along with several projects related to ICT and elderly and related issues.	May - December 2020	Presentation and contributions	60

## 6 Conclusions

This deliverable is presenting the communication strategy planned for reaching the end-users of the ACESO solution. In ACESO, we are relying on the Buying Cycle from Huthwaite International which is based on the psychology of human decision. The Buying Cycle was designed after close observation of the behavior people adopt when they are making big decisions. We are also presenting the dissemination channels used in the project and are detailing their implementation such which comprises the ACESO webpage, blogs, events (past and upcoming), LinkedIn page for professionals, Facebook

page for primary users, etc. A list of dissemination events is also presented. Annex 1 is presenting the Blog articles prepared so far by the ACESO consortium.

## 7 Document History

Date	Changes	Version	Author
August 2021	First version	1	CSW
September 2021	Second version	2	Additions by all partner
September 2021	Third version	3	CSW
Ocotber 2021	Forth version	4	CITST

## 8 References

<sup>1</sup> The Buying Cycle from Huthwaite International, accessed 19<sup>th</sup> of September 2021, <https://www.huthwaiteinternational.com/blog/maximise-new-business-potential>

<sup>2</sup> ACESO LinkedIn page: <https://www.linkedin.com/company/aceso-patient-centric-solution-for-smart-and-sustainable-healthcare/>

<sup>3</sup> ACESO Facebook page: <https://www.facebook.com/ACESO.Integrated.Health.Feedback>.

<sup>4</sup> FitEurope seminar: <https://fit-europe.eu/seminars/seminar3.html>

### 1 Annex 1 - Blog articles prepared by the ACESO consortium

- 1) Dr. Ligia Muntianu, LSDM, An oral care guide.
- 2) Dr. Ligia Muntianu, LSDM, Integrative medicine and oral health.
- 3) Cristiana Ciobanu, CITST, The smile and social inclusion.
- 4) Cristiana Ciobanu, CITST, Keep your smile, as a messenger of emotions and intentions.
- 5) Dr. Ligia Muntianu, LSDM, Good oral hygiene is tied to good digestion.
- 6) Janos Csebfalvi, CSW, Oral health education for the elderly through ICT technology.
- 7) Janos Csebfalvi, CSW, Patient centric solution for smart and sustainable healthcare (ACESO)



ligiamuntianu · a day ago · 3 min read

## An oral care guide

Dr. Ligia Stanca Muntianu



People can maintain healthy teeth throughout their lifetime. Do you know how? Here are some things you can do

- Manage stress in your life. It has been demonstrated that stress is a cause for caries development. The mechanism involves a decrease in our immunity system.
- Avoid very sweet sticky snacks like candy bars, caramels, or chocolate with caramels. Replace it with fruits. Did you know 1 prune delivers vitamins A, B,C K, E folic acid, potassium, fluoride,

phosphorus, Magnesium, iron calcium, and Zn? It is a fruit used in obesity control, offers fibers, low calories, and no bad fats. A study published in 2017 in the *Journal of Obesity & Therapeutics* shows that prunes do have bioactive compounds that help in the treatment of Metabolic Syndrome.

- Brush like a dentist twice a day and floss between teeth to remove dental plaque and rinse with mouth wash
- Do not go to bed without brushing your teeth properly. It is very important to go to sleep with your mouth clean. During the night, you don't open your mouth, so an anaerobic atmosphere is beneficial for cariogenic bacteria to develop. Leaving food trapped on your teeth only provides nourishment for such microbes
- Change the brand of your toothpaste often. Oral microbiologic flora gets used to it. Bette, try to use natural toothpaste you can find in planar. They are made from plants that contain natural essential oils with antimicrobial effects
- Read the composition of fluoride quantity contained in your toothpaste. Buy the one that has the lowest percentage. You may want to find toothpaste with no fluoride. An increase in fluoride intake affects your brain activity, inhibiting the volitional center.
- If your gums bleed, brush with a soft toothbrush, rinse with hot water to improve capillary circulation. Hot water has an anti-inflammatory effect, dilates the small blood vessels, and peripheric circulation is improved. You can also use bubble mineral water. The bubbles in the water make a massage to your gums. If the problems still persist, ask your dentist to teach you the proper manner of brushing your teeth. Also, maybe you lack vitamin C.
- Consume vitamin C to maintain the health of your gums and periodontal ligaments. You can find it in foods like:
  - Parsley
  - Peppers
  - Berries
  - Sea buckthorn. You can consume either raw, tea, or oil capsules if you have stomach problems or ulcers.
  - Rose hip-drink rosehip tea instead of water
- Eat apples. It provides the natural self-cleaning of your mouth between meals. Tongues and muscles movements along with salivary increase remove the dental plaque. But this is not a substitute for brushing your teeth
- Consume propolis 5 days a month. It will increase your immunity. Propolis tincture is a good antiseptic but always use it diluted with water otherwise, you will burn your mucosa.
- Go to your dentist for regular checkups.
- When your dentist gives you antibiotics for 5 days, take them for 5 days. Do not stop after three. Because you will create microbial resistance to the drug, and next time you will need it it will not work anymore
- Do not use any tobacco products. If you smoke, quit. Smoking produces bone resorption around teeth
- Limit alcoholic drink
- If you have diabetes, strictly control your blood sugar level. This will avoid complications like gum disease or easy bleeding. Also, maintaining good oral hygiene and professional scaling can help decrease glycemia.
- If your medication causes you dry mouth, ask your medical doctor if there are other drugs you can use that don't cause this. Also, drink plenty of water, consume citrus, chew sugarless gums, avoid tobacco and alcohol.
- If you have a dry mouth and you can not change medication, ask your dentist what else it can be done. He might give you some tongue exercises or massage techniques to improve salivary flow.
- If you act as a caregiver, help other individuals brush and floss their teeth or brush their dentures if they are not able to do it individually or check if they did it well.
- See a doctor or a dentist if you have a sudden change in taste or smell.

By the way... When did you see your dentist last?..

### About Aceso

ACESO is a patient-centric solution for smart and sustainable healthcare, employing a co-creative approach to realize integrated health and oral-care platform in which intelligent devices use data analytics for adaptable health and wellbeing. ACESO will monitor parameters related to physical health (blood pressure, glucose, heart rate, oxygen saturation, etc.), activity, sleep, and oral hygiene in an integrative manner which will provide primary users with personalized and adaptive feedback extracted by an underlying artificial intelligence engine. A patient-centric approach that actively involves users in maintaining their health will bring clear benefits for the elderly and caregivers. Aceso is funded by AAL. [More about Aceso...](#)

### About AAL

**AAL- Ageing Well in the Digital World** - is a funding program that aims to create a better quality of life for older people and to strengthen industrial opportunities in the field of healthy aging technology and innovation. [More about AAL](#).

### Contact:

[www.aal-aceso.eu/contact](http://www.aal-aceso.eu/contact)



0 views 0 comments



Recent Posts

See All

**Integrative medicine and oral health**

5 views 0 comments 2 likes

**The smile and social inclusion**

7 views 0 comments 2 likes

**Keep your smile, as a messenger of emotions a...**

24 views 0 comments 1 like

### Subscribe Form

First Name

Last Name

Phone

Email

Message



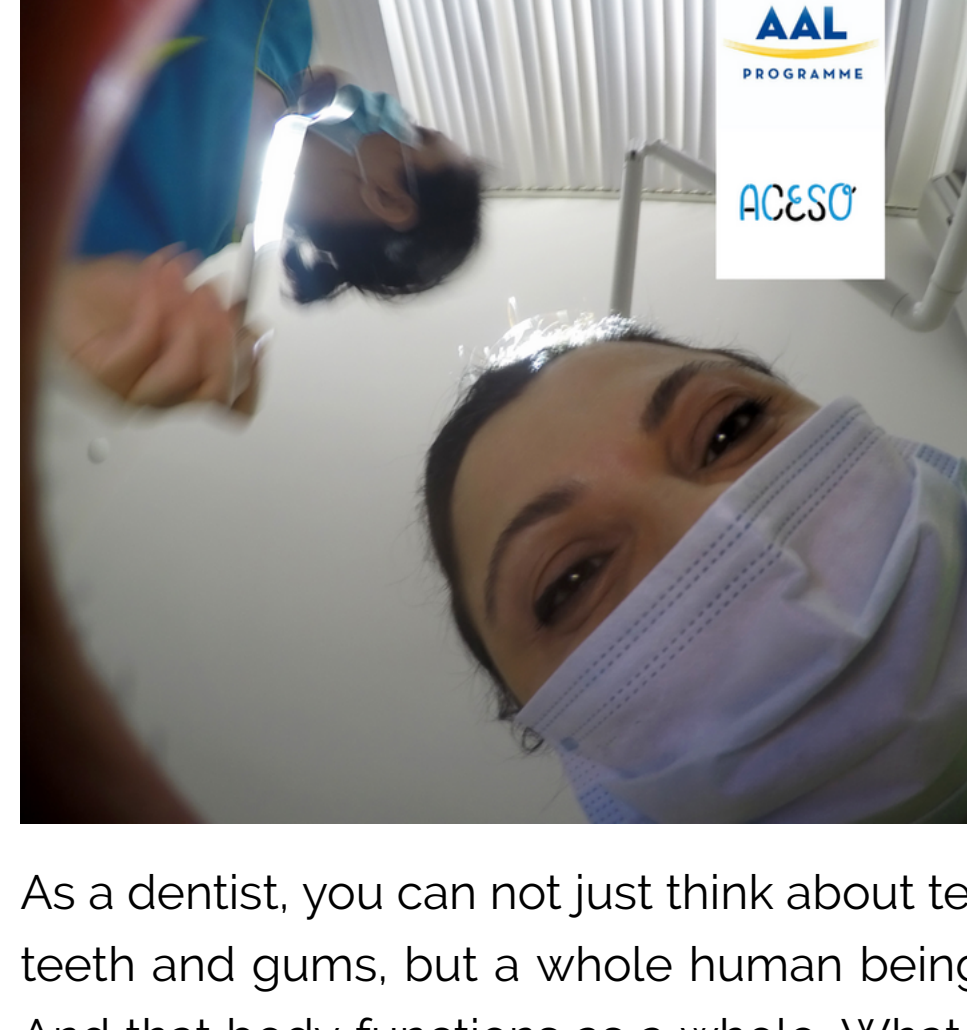
Submit

ligiamuntianu · Nov 24 · 5 min read

## Integrative medicine and oral health

Updated: 6 days ago

Dr. Ligia Stanca Muntianu, LSDM



Generally, many illnesses have early signs in the oral cavity. Not only that your dentist can recommend a visit to other specialties in order to improve your health, but she can collaborate with other specialists in order to be able to deliver dental treatment with the best outcome.

Integrative medicine sounds very complicated but if we think a little, it is quite very simple.

### Gums, teeth, and the whole person

As a dentist, you can not just think about teeth and gums because your patient is not just teeth and gums, but a whole human being. Teeth and gums are integrated into a body. And that body functions as a whole. Whatever disfunction of dis-ease affects the whole body not just locally the spot where it happens. Even if you don't realize when a tooth hurts, maybe you can also have a headache, pain by itself produces changes in all your body, and signals are being transmitted through the neuro-vegetative system in order to mobilize mechanisms of defense and repair.

When a person suffers from a disease, this illness determines modifications all over including the oral cavity. There are two main aspects to discuss when talking about integrative medicine

- One is how can a general illness affect the structures of the oral cavity
- The other is about early signs present in the oral cavity that can indicate the presence of a certain illness which is not yet manifested of the patient does not know about yet

In the dental office at the first visit, your dentist will perform a consultation. This consultation does not involve only the oral cavity but also your head and neck. The methods used for clinical examination include inspection, palpation percussion, and auscultation.

Inspection refers to everything the doctor can see when looking at a patient. In dentistry it means, the overall aspects of somatic development, nervous tics, body appearance, body symmetry, the form of the face, skin color and integrity, symmetry of the face, lips aspect color symmetry, plenitude, aesthetic aspects, eyes position, the opening of the mouth, particular signs, etc. Inside the mouth, an inspection gives information about the aspect, color integrity, and symmetry of all structures present there and the oropharynx. Palpation means information a doctor can gather by touching the body either with his hands or with a blunt instrument.

In dentistry, we palpate manually with the hands, nervous points, muscles of the head and neck, lymph nodes, bone structures, temporomandibular joint (TMJ), maxillary sinus, the oral floor of the mouth. Instrumental palpation usually is performed in the oral cavity and is involves typical instruments in the dental kit. We palpate teeth, muscles of the palatal veil, edentate ridge the depth of the periodontal groove.

Percussion means gathering information by hearing and listening when a structure is being hit either by hand or an instrument. Dentists do that with an instrument and usually inside the mouth

Auscultation means also gathering information by hearing and listening only this time you want to hear and listen to how a function or activity is being done. Like listening to the heart or the lungs. In dentistry, we want to hear if the temporomandibular joint produces any sound at all because this means there is a profound injury there.

These methods are the same in all medicine.

Patient history means your dentist has to know your medical history in order to realize your general health state is, what illnesses you suffer from, what you are sensitive to, or what allergies you have, what medication you take. This information orients the dentist in customizing dental treatment according to each patient. There are of course paraclinical investigations which include various analyzes, imagistic investigations, all depending on what the doctor discovers or what's to see in this stage of consultation.

### How does a general illness affect structures in the oral cavity

General diseases as I said previously produce modifications in all the body. Everyone knows that when one has hepatitis jaundice is present. That means his skin is lemon yellow. A person with a liver problem should receive anesthesia with an anesthetic that is eliminated through kidney metabolization and not through the liver.

If a patient has diabetes there are a lot of modifications in the oral cavity. Diabetes produces capillary fragility, put's patient at risk of quick injury he bleeds easily, has a long and complicated healing time and they are prone to risk infection. They often suffer from paradontotic problems. Oral mucosa is very fragile.

The patient should inform the dentist about anticoagulant medication because otherwise, a simple extraction might put the patient at risk of losing his life.

Osteoporosis is a condition that requires special medication. This medication affects all body's bones. In the oral cavity, it is a contraindication of implant treatment for someone who is on osteoporosis medication. It provokes osteonecrosis and implant failure. Extractions and sutures are difficult in such cases because the gingiva is more fragile than a jelly.

So it is important not to hide any information from your dentist when you go for a visit. Your own good is not only the dentist's responsibility it is yours as well.

### Signs in the oral cavity or around the head and neck that can indicate an ongoing disease the patient is not aware of

- Very pale keratinized oral mucosa is characteristic of anemia.
- A sore on the lip that doesn't go away or pain in the mouth that does not go away may be signs of oral cancer.
- Severe headaches may be the response of dental treatment when oral splints are involved but also might be a sign of brain cancer.
- Gingivitis may be present one or two days before menstruation in women.
- The use of contraceptive pills increases the inflammatory response to dental plaque. Acromegaly is an excess of growth hormone and results in an exaggerated growth of soft tissues tongue included.

White lacy patches, swollen tissues, or open sores present in the oral cavity may cause burning, pain, or another discomfort. These are signs of oral lichen planus. This is a chronic inflammatory condition that affects the mucous membrane inside the mouth. It is a condition that can lead to malignancy. Inflammation of supraclavicular lymph nodes on the left side is a pathognomonic and early sign of gastric cancer. So the dentist can immediately refer the patient to a specialist.

Generally, many illnesses have early signs in the oral cavity. Not only that your dentist can recommend a visit to other specialties in order to improve your health, but he can collaborate with other specialists in order to be able to deliver dental treatment with the best outcome.

So, it is worth visiting your dentist. When?...

### About Aceso

ACESO is a patient-centric solution for smart and sustainable healthcare, employing a co-creative approach to realize integrated health and oral-care platform in which intelligent devices use data analytics for adaptable health and wellbeing. ACESO will monitor parameters related to physical health (blood pressure, glucose, heart rate, oxygen saturation, etc), activity, sleep, and oral hygiene in an integrative manner which will provide primary users with personalized and adaptive feedback extracted by an underlying artificial intelligence engine. A patient-centric approach that actively involves users in maintaining their health will bring clear benefits for the elderly and caregivers. Aceso is funded by AAL. [More about Aceso...](#)

### About AAL

**AAL- Ageing Well in the Digital World** - is a funding program that aims to create a better quality of life for older people and to strengthen industrial opportunities in the field of healthy aging technology and innovation. [More about AAL.](#)

### Contact:

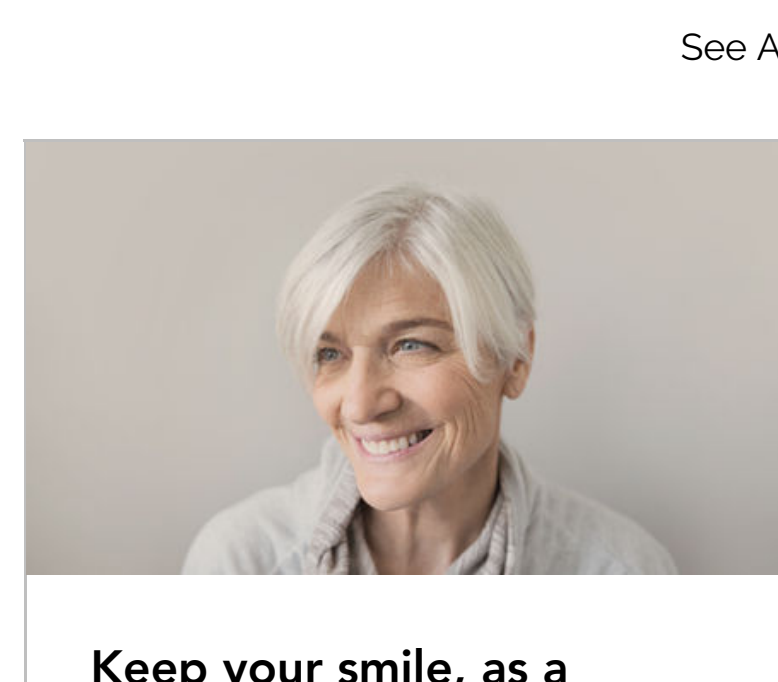
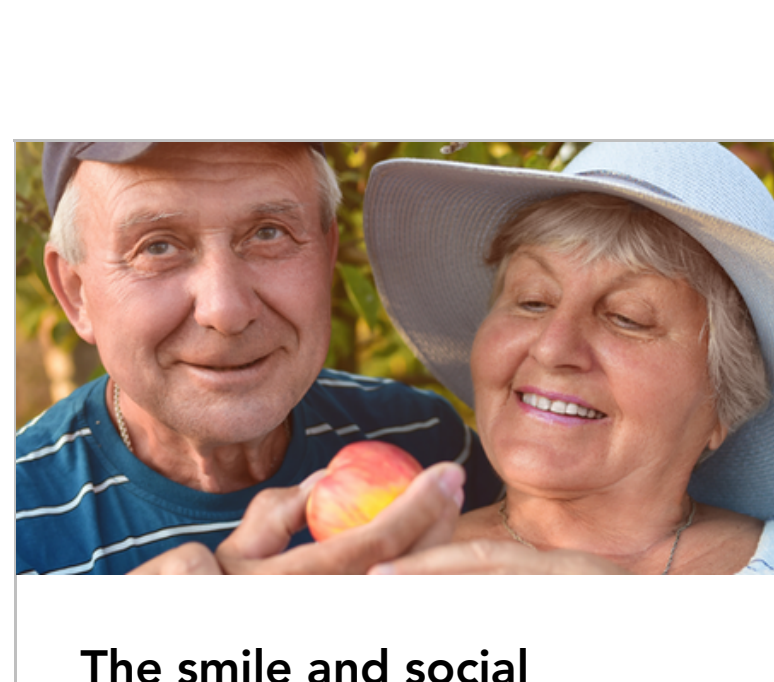
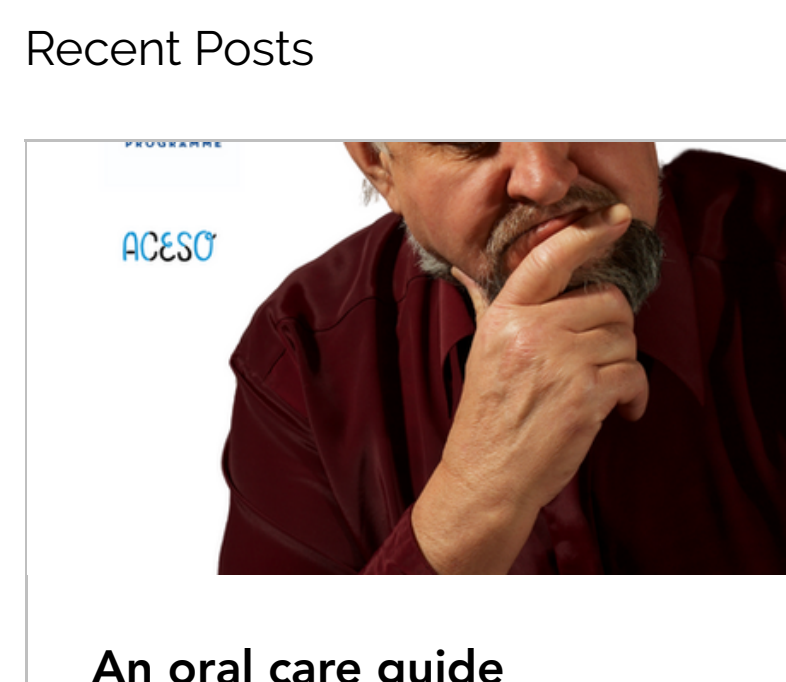
[www.aal-aceso.eu/contact](http://www.aal-aceso.eu/contact)

5 views 0 comments 2 likes

Facebook Twitter LinkedIn

### Recent Posts

See All



### Subscribe Form

First Name

Last Name

Phone

Email

Message



Submit

oanacramariuc · Nov 17 · 3 min read

### The smile and social inclusion

Updated: 6 days ago

Cristiana Ciobanu, CITST



The importance of a good smile is undoubted, this is why oral hygiene should be of utmost concern, especially for older adults.

The ubiquitous smile is known to us all. It can be defined as the facial expression which denotes happiness, delight, amusement, and an array of similar emotions. Through smiling, we communicate our positive moods and feelings to the people around us. Through the act of smiling, we pave the road for meaningful human interaction.

According to Encyclopaedia Britannica,

The social smile is apparently innate in the human species[1], there is evidence that even people born blind have this movement of the face muscles deep embedded into their genes, being able to smile exactly as a sighted person would when they experience certain emotions [2]. This means that for the human species, smiling seems to always have been incremental to showing joy and appreciation. Over the thousands of years we smiled, it evolved so that it is no longer just nurture – learning by the imitation of parents or peers – but also nature, an instinctual action.

The smile in two-month-old babies is "their first true sign of social responsiveness"[3]. By smiling, babies invite adults to interact with them, they show the world they are ready to play and to receive attention. Thus, we can say that a smile serves a social purpose, communicating certain messages to the people we meet. A genuine smile makes people around us perceive us as open, outgoing individuals, which are easy to approach and get along with. A smiling person makes a good first impression, whether at a social gathering, at a job interview, or while trying to persuade someone to take into account other opinions or views. A smile is a way in which we can say "I love you" or "I am happy to have you in my life" to our loved ones without having to utter a single word.

But what can we do when we have an imperfect smile? How can we express our emotions through smiling if your smile does not match with what is socially acceptable or expected? Often, people with 'bad' smiles simply decide to not employ them. They are afraid to show their imperfect or missing teeth, developing smiling anxiety. Smiling anxiety can lead to low self-esteem and self-confidence, which, in turn, can lead to serious psychological problems. According to a study concerning the social integration of older adults, 'those with more teeth and fewer oral health problems are more socially engaged'[4]. Bad teeth or breath either determines older adults to self-isolate from the community or it creates prejudice among acquaintances, friends, and family, which, in turn, tend to avoid the person.

The importance of a good smile is undoubted, this is why oral hygiene should be of utmost concern, especially for older adults. In time, oral health tends to deteriorate due to aging and lack of care, which leads to a variety of problems, from periodontitis and tooth decay to missing teeth.

#### Take care of your teeth before it's too late!

- Wash your teeth twice a day, use dental floss and mouthwash.
- Make appointments with your dentist periodically in order to professionally clean your teeth and prevent dental problems.

#### Be responsible – prevent, don't treat!

#### References:

[1] <https://www.britannica.com/topic/human-behavior/Emotional-development>  
 [2] Matsumoto, D. and Willingham, B., 2009. Spontaneous facial expressions of emotion of congenitally and noncongenitally blind individuals. *Journal of Personality and Social Psychology*, 96(1).  
 [3] <https://www.britannica.com/topic/human-behavior/Emotional-development>  
 [4] Arcury, T., Chen, H., Savoca, M., Anderson, A., Leng, X., Bell, R. and Quandt, S., 2011. Ethnic Variation in Oral Health and Social Integration Among Older Rural Adults. *Journal of Applied Gerontology*, 32(3), pp.302-323.

#### About Aceso

ACESO is a patient-centric solution for smart and sustainable healthcare, employing a co-creative approach to realize integrated health and oral-care platform in which intelligent devices use data analytics for adaptable health and wellbeing. ACESO will monitor parameters related to physical health (blood pressure, glucose, heart rate, oxygen saturation, etc), activity, sleep, and oral hygiene in an integrative manner which will provide primary users with personalized and adaptive feedback extracted by an underlying artificial intelligence engine. A patient-centric approach that actively involves users in maintaining their health will bring clear benefits for the elderly and caregivers. Aceso is funded by AAL. [More about Aceso...](#)

#### About AAL

AAL- Ageing Well in the Digital World - is a funding program that aims to create a better quality of life for older people and to strengthen industrial opportunities in the field of healthy aging technology and innovation. [More about AAL.](#)

#### Contact:

[www.aal-aceso.eu/contact](http://www.aal-aceso.eu/contact)



7 views 0 comments

2 ❤

#### Recent Posts

See All

**An oral care guide**

1 👁 0 💬 ❤

**Integrative medicine and oral health**

6 👁 0 💬 2 ❤

**Keep your smile, as a messenger of emotions a...**

24 👁 0 💬 1 ❤

#### Subscribe Form

First Name

Last Name

Phone

Email

Message



Submit

oanacramariuc · Nov 10 · 4 min read

## Keep your smile, as a messenger of emotions and intentions

Updated: 6 days ago

Cristiana Ciobanu, CITST



**The smile is one of the few universals in body language, carrying a similar meaning across all cultures. So, let's keep your smile with maintaining good oral hygiene.**

On a daily basis, we interact with family, friends, acquaintances, and strangers with the help of verbal and nonverbal communication. However, experts agree that 70 to 93 percent of communication is nonverbal[1], and this type of interaction consists of small gestures, eye movements, facial expressions, changes of posture, etc. We are going to focus on the smile as a messenger of emotions and intentions. The smile is one of the few universals in body language, carrying a similar meaning across all cultures.

**In Romania**, for example, **the smile is considered "your business card"**, meaning that it is of great importance in how the people around you perceive you: if you smile often and your smile is genuine, you have more chances of being seen as an outgoing person, easy to talk to and delightful to be with. Conversely, if you don't smile, people will often perceive you as serious, rigid, or even grumpy, reducing the chances of fitting in.

**In Poland, smiling should reflect the inner feelings**, meaning that if you do not feel happiness, appreciation, joy, or any other emotion which could evoke a grin, it is considered impolite to smile[2]. We can find the same situation in France and Germany, where people are usually reserved and smile only if they really feel like doing so[3]. Similarly, in Russia, smiles are seldom seen on the street, between strangers or acquaintances, mostly for good friends or family [4].

**In Britain, it is considered polite to smile.** According to Arapova, the smile is considered 'an integral feature of British nonverbal communication, which is seen as the lack of aggressiveness towards those around oneself' [5]. Thus, British people see the lack of a smile in a conversation as disrespectful. Something similar applies to Switzerland, smiling is a way to show respect during a conversation, and it is expected of you to smile, regardless of your true feelings[6].

**America is known for its particularly smiling citizens, whose habit to always smile, even at strangers, sets them apart from other nations.** As Szarota states, positive feelings have central importance in the American culture[7]. This is in great contrast with Japan, whose culture dictates that people should smile to keep a social balance, regardless of their true feelings[8].

As we can see, **the act of smiling can have different functionalities, depending on the culture, but it always retains the aspect of expressing (positive) emotions.** Can we imagine how difficult it would be to say our happiness while concealing an imperfect smile wholeheartedly to paint a contrasting picture? Would our joy, amusement, love, or even politeness be the same without the central piece of a warm smile or jolly laughter?

As we can see, our lives are heavily impacted by such a minor detail: the infamous triangle shape we make with our mouths. Sometimes, it can convey more love than any book ever could. Other times it helps us deal with stressful situations and solve conflicts better than any negotiator. And what does it cost? Less energy than a frown and the 10 minutes per day necessary to wash, floss and rinse with mouthwash.

However, we are not the only ones who enjoy examining perfect smiles; the stomatologists who dedicated themselves to that same goal would also like to consult your pearly teeth every six months such as to prevent any cavity or dental problem from ruining your smile, causing pain and burdening your life for no good reason.

When are you going to see your dentist next?

### References:

- [1] <https://www.lifesize.com/en/blog/speaking-without-words/>
- [2] Szarota, P., 2011. *Smiling and Happiness in Cultural Perspective. Austral - Asian Journal of Cancer*, 10(4).
- [3] Szarota, P. *The Mystery of the European Smile: A Comparison Based on Individual Photographs Provided by Internet Users. J Nonverbal Behav* 34, 249–256 (2010). <https://doi.org/10.1007/s10919-010-0093-y>
- [4] Arapova, M., 2016. *Cultural differences in Russian and Western smiling. Russian Journal of Communication*, 9(1), pp.34-52.
- [5] Idem.
- [6] <https://hawaiiifamilydental.com/news/smiles-through-different-cultures/>
- [7] Szarota, P., 2011. *Smiling and Happiness in Cultural Perspective. Austral - Asian Journal of Cancer*, 10(4).
- [8] Idem.

### About Aceso

ACESO is a patient-centric solution for smart and sustainable healthcare, employing a co-creative approach to realize integrated health and oral-care platform in which intelligent devices use data analytics for adaptable health and wellbeing. ACESO will monitor parameters related to physical health (blood pressure, glucose, heart rate, oxygen saturation, etc), activity, sleep, and oral hygiene in an integrative manner which will provide primary users with personalized and adaptive feedback extracted by an underlying artificial intelligence engine. A patient-centric approach that actively involves users in maintaining their health will bring clear benefits for the elderly and caregivers. Aceso is funded by AAL. [More about Aceso...](#)

### About AAL

**AAL- Ageing Well in the Digital World** - is a funding program that aims to create a better quality of life for older people and to strengthen industrial opportunities in the field of healthy aging technology and innovation. [More about AAL.](#)

### Contact:

[www.aal-aceso.eu/contact](http://www.aal-aceso.eu/contact)

smile emotion

f t in e

lifestyle, mental health.

24 views 0 comments

1 ❤️

### Subscribe Form

First Name

Last Name

Phone

Email

Message



Submit

All Posts lifestyle, mental health.



ligiamuntianu · Nov 3 · 4 min read

## Good oral hygiene is tied to good digestion

Updated: 6 days ago

Dr. MD Ligia Muntianu, LSDM



This article describes the organs, their process, and the possible effects of bad oral hygiene.

At young and old ages, cleaning teeth is strongly recommended twice a day, especially in the evening after the last meal, to contribute to good oral hygiene and general health.

**The mouth** is the first part of the digestive tract. Here is the place where digestion begins. Mastication comprises a lot of complex food circuits. First, food must be mechanically reduced into smaller parts and mixed it well with saliva. Then, once the alimentary bolus is formed, the tongue and teeth, lips, and cheek organize together to form a kind of sleigh on which the food bowl is transferred through the oropharynx into the esophagus.

**Trituration** is a mechanical process done with teeth from the lateral zone. That means with our 2 upper and lower premolars and upper and lower 2/3 molars. The integrity of these teeth makes one capable of reducing the size of food morcels into smaller parts. Mixing these smaller parts with food means the beginning of digestion because saliva has digestive enzymes.

The tongue has multiple roles in the mastication process. It moves food morcels from one side to another, from the left side to the right side of the mouth. This movement has multiple roles: one is to stimulate gustative papillae to sense the taste of food. Another is to stimulate small salivary glands' secretion, and together with cheek movements, it helps to mix with the whole saliva coming from the major salivary glands. This process is thoroughly done, and the brain knows when it is well done by receiving information regarding food consistency from teeth proprioceptors.

These **proprioceptors** - responsible for food consistency input information, which regulates masticatory force and intensity - especially one that responds to position and movement - belong to the periodontal apparatus between the dental root and bone. It actually forms an elastic link between the root and the bone. The periodontal ligaments are isolated from the mouth environment by an epithelial seal called epithelial junction. It prevents bacteria, saliva, and food from invading the bone. Any inflammation of the gingiva due to dental plaque accumulation can and will open the epithelial seal.

Once a tooth is extracted, the periodontal ligaments are broken, and they never regenerate. Each tooth provides over 5 million proprioceptors that give the brain information regarding food consistency, so the masticatory force is regulated. Dental implants are inserted into the bone, but they lack periodontal ligaments. Their link to the bone is ankylotic. So the information they provide to the brain to regulate masticatory force is much lower than natural roots.

**Salivary secretion** is stimulated by oral hygiene and has a beneficial effect on the mouth's health, preventing teeth from carries and exhibiting antibacterial effects. Conversely, salivary flow diminishes when oral hygiene is bad. Being diminished means nutrients can not be released from food bites, so the digestive process is affected.

**Oral hygiene** is essential because mouth flora forms a biofilm, and that is called dental plaque. It has to be cleaned away regularly from the teeth, tongue, or any prosthetic restoration because leaving it there changes the oral acidity. This acid environment demineralizes dental enamel and allows bacteria to attack the teeth forming dental caries. So it has to be understood that dental caries is an infectious disease. Poor oral hygiene means a lot of dental plaque accumulates in the oral cavity. It also means a lot of bacteria proliferates. The mouth becomes, in this case, a reservoir of bacteria.

**Deglutition** - the action or process of swallowing - is a permanent function of the masticatory organ, and it happens with or without food. The number of deglutition one performs in 24h is around 590-1600 times. A person with poor oral mouth hygiene will ingest 1600 times in 24h bacteria from the oral flora, and in time this can provoke gastritis, stomach pain, or even aspiration pneumonia. Furthermore, in time, together with minerals from the saliva, it turns into dental tartar. Accumulation of dental tartar affects the periodontal ligaments, leading to gingivitis and bone resorption, and teeth loss in severe forms.

**Teeth loss** affects the mechanical process of food trituration and impairs the beginning of digestion since saliva is not mixed with it. As a result, patients will swallow big morcels of food that the stomach cannot digest, nutrients are not extracted, and this can lead to malnutrition and digestive tract disease.

Poor oral hygiene affects dental structure generating caries, tooth deterioration, poor mastication periodontal ligaments generating bleeding, gingivitis, tooth mobility, bone resorption, and tooth loss- poor mastication salivary flow rate diminishes digestive tract health by dental plaque and bacteria accumulation and transfer through each deglutition

At young ages and old ages, taking care of oral hygiene is mandatory twice a day, especially in the evening, after the last meal, to contribute to good general health.

And how about you...?

### About Aceso

ACESO is a patient-centric solution for smart and sustainable healthcare, employing a co-creative approach to realize integrated health and oral-care platform in which intelligent devices use data analytics for adaptable health and wellbeing. ACESO will monitor parameters related to physical health (blood pressure, glucose, heart rate, oxygen saturation, etc), activity, sleep, and oral hygiene in an integrative manner which will provide primary users with personalized and adaptive feedback extracted by an underlying artificial intelligence engine. A patient-centric approach that actively involves users in maintaining their health will bring clear benefits for the elderly and caregivers. Aceso is funded by AAL. [More about Aceso...](#)

### About AAL

**AAL- Ageing Well in the Digital World** - is a funding program that aims to create a better quality of life for older people and to strengthen industrial opportunities in the field of healthy aging technology and innovation. [More about AAL.](#)

### Contact:

[www.aal-aceso.eu/contact](http://www.aal-aceso.eu/contact)



4 views 0 comments



Recent Posts

See All

**An oral care guide**

1 views 0 comments

**Integrative medicine and oral health**

6 views 0 comments 2 likes

**The smile and social inclusion**

8 views 0 comments 2 likes

### Subscribe Form

First Name

Last Name

Phone

Email

Message



Submit

All Posts lifestyle, mental health.



ligiamuntianu · Oct 27 · 3 min read

## Oral health education for the elderly through ICT technology

Updated: 6 days ago



**"Patient centric solution for smart and sustainable healthcare"/ ACESO". Leading oral-care manufacturers are envisioning a world where daily oral health routines can be used to educate consumers to take care of their health comprehensively.**

State of the art research and ongoing European projects are striving towards extracting health knowledge from daily oral routine and using this knowledge for optimizing care and for leading a longer and healthier life. In this context, the "Patient centric solution for smart and sustainable healthcare" (ACESO) project is aiming to exploit modern Artificial Intelligence (AI) technologies in order to build an integrated health and oral-care platform in which intelligent devices use data analytics to learn about users' oral and general health and wellbeing. The approach will enhance oral health education and will spur the ability of patients to play a more active role in managing their health. Thus, we will help to support the current trend in sustainable care which aims at shifting care delivery from a patient-centered to a patient-centric approach.

The **oral self-care devices** to be integrated into ACESO are selected based on preliminary discussions with dentists and hygienists who have underlined the importance of correct oral hygiene in the elderly and the rising incidence of **hyposalivation** not only among the elderly but also among older adults due to medication, chemo- and radiotherapy, etc. Hyposalivation is causing serious medical, psychological, and social privations and distress, especially among the aging population. Thus, in this work, we present methods of selecting, classifying, and involving the elderly in the ACESO project. We also present initial test results on stimulated salivary secretion obtained through the participation of 20 adults and the elderly. We analyze the participants from the point of view of salivary status at rest as well as in function. The analysis shows a great variety of responses. Some participants may have low secretion at rest but the salivary glands recuperate in function. Some participants have low flow at rest, in the function it increases three times but it is still insufficient. Some participants may have good secretion at rest but in function, the glands cannot cope and the flow does not increase but decrease. Some showed a normal flow but a difficult increase.

ACESO's ambitious goals are pursued by a **multinational consortium** involving both academic and industrial partners from **Poland, Romania, Switzerland, Slovenia, and Hungary**. Several differences are known to exist among the targeted users in these countries. Consequently, cross-national cooperation within ACESO will be able to take into account differences in national backgrounds during the development of the platform and in training and educating the users.

[Learn more about Aceso...](#)

### About Aceso

ACESO is a patient-centric solution for smart and sustainable healthcare, employing a co-creative approach to realize integrated health and oral-care platform in which intelligent devices use data analytics for adaptable health and wellbeing. ACESO will monitor parameters related to physical health (blood pressure, glucose, heart rate, oxygen saturation, etc), activity, sleep, and oral hygiene in an integrative manner which will provide primary users with personalized and adaptive feedback extracted by an underlying artificial intelligence engine. A patient-centric approach that actively involves users in maintaining their health will bring clear benefits for the elderly and caregivers. Aceso is funded by AAL. [More about Aceso...](#)

### About AAL

**AAL- Ageing Well in the Digital World** - is a funding program that aims to create a better quality of life for older people and to strengthen industrial opportunities in the field of healthy aging technology and innovation. [More about AAL.](#)

### Contact:

[www.aal-aceso.eu/contact](http://www.aal-aceso.eu/contact)



11 views 0 comments



Recent Posts

See All

**An oral care guide**

1 views 0 comments

**Integrative medicine and oral health**

6 views 0 comments 2 likes

**The smile and social inclusion**

8 views 0 comments 2 likes

### Subscribe Form

First Name

Last Name

Phone

Email

Message



Submit



János Csébfalvi · Oct 26 · 2 min read

### Patient centric solution for smart and sustainable healthcare (ACESO)



Oral hygiene is a daily activity performed by all people. Hence, one can envision a time when this activity can be exploited to infer a wealth of information about the person performing it.

The main functionalities of ACESO are

- monitoring physical health parameters and oral hygiene;
• reminders for users;
• maintaining oral care through personalized brushing experience and
• assessment tools for caregivers.

The target market is composed of elderly and professional caregivers (doctors, dentists, hygienists). Our patient-centric approach brings clear benefits for the elderly who will become actively involved in maintaining their health.

#### Objectives

ACESO is employing a co-creative approach to realize integrated health and oral-care platform in which intelligent devices use data analytics for adaptable health and wellbeing.

#### Expected Results and Impact

ACESO will develop an integrated health and oral-care platform tested and validated by users in Poland, Hungary, and Slovenia. Remote digital assessment tools for professionals will enable them to reach patients even in remote areas and to optimize their care interventions by coaching their patients and helping them to form better routines.

#### Project essentials

- Coordinator: Centrul IT pentru Stiinta si Tehnologie
• Duration: 36 months
• Starting date: 01.05.2020.
• Total budget: € 2,705,088
• Public contribution: € 1.872.930

#### About Aceso

ACESO is a patient-centric solution for smart and sustainable healthcare, employing a co-creative approach to realize integrated health and oral-care platform in which intelligent devices use data analytics for adaptable health and wellbeing.

#### About AAL

AAL- Ageing Well in the Digital World - is a funding program that aims to create a better quality of life for older people and to strengthen industrial opportunities in the field of healthy aging technology and innovation.

#### Contact:

www.aal-aceso.eu/contact



12 views 0 comments

2 hearts

#### Recent Posts

See All

ACESO An oral care guide 1 view 0 comments 1 heart

ACESO Integrative medicine and oral health 6 views 0 comments 2 hearts

ACESO The smile and social inclusion 8 views 0 comments 2 hearts

#### Comments

Write a comment..

#### Subscribe Form

First Name
Last Name
Phone
Email
Message



Submit