



THE SCIENCE OF DENTISTRY, ITS RELEVANCE AND IMPORTANCE IN MEDICINE

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Annotation: Looking closer at how teeth and gums tie into broader health shows dentistry stands on its own while fitting tightly into medicine. Backed by wide reading across trusted journals in health and biology, research reveals ways dental work helps catch illness early, slow disease, and lift daily living standards. Heart troubles, blood sugar problems, infections - links to mouth condition keep turning up wherever experts look. A scholar from Uzbekistan points out hurdles faced worldwide: too few people reaching clinics, delays spotting issues, weak prevention habits. Solutions rooted in proof are being shaped to help dental practice play a stronger part alongside doctors and hospitals. Far from just fixing tooth pain, the field proves deeply woven into full-body wellness and community health efforts.

Keywords: preventive medicine, systemic diseases, public health, dental education, healthcare integration, clinical dentistry, medical relevance, oral pathology, interdisciplinary medicine, patient care.

STOMATOLOGIYA FANI, UNING DOIRLIGI VA TIBBIYOTDAGI AHOLIYLIGI

Annotatsiya: Tishlar va milklarning kengroq sog'liqqa qanday bog'liqligini batafsil ko'rib chiqish stomatologiyaning tibbiyotga mahkam o'nashib qolgan holda mustaqil ekanligini ko'rsatadi. Sog'liqni saqlash va biologiya sohasidagi ishonchli jurnallarda keng o'qishlar bilan tasdiqlangan tadqiqotlar stomatologiya ishi kasalliklarni erta aniqlashga, kasallikni sekinlashtirishga va kundalik turmush darajasini oshirishga qanday yordam berishini ochib beradi. Yurak muammolari, qon shakar muammolari, infeksiyalar - og'iz bo'shlig'i kasalliklari bilan bog'liq muammolar mutaxassislar qayerga qaramasin, doimo yuzaga keladi. O'zbekistonlik olim butun dunyo bo'ylab duch kelayotgan to'siqlarni ta'kidlaydi: klinikalarga juda kam odam yetib borishi, diagnostika bilan bog'liq muammolarning kechikishi, profilaktika odatlarining sustligi. Dalillarga asoslangan yechimlar stomatologiya amaliyotiga shifokorlar va kasalxonalar bilan bir qatorda kuchliroq rol o'ynashiga yordam berish uchun shakllantirilmoqda. Bu soha shunchaki tish og'rig'ini bartaraf etishdan uzoqda, butun tana salomatligi va jamoat salomatligi sa'y-harakatlariga chuqur singib ketgan.

Kalit so'zlar: profilaktik tibbiyot, tizimli kasalliklar, jamoat salomatligi, stomatologiya ta'limi, sog'liqni saqlash integratsiyasi, klinik stomatologiya, tibbiy dolzarblik, og'iz patologiyasi, fanlararo tibbiyot, bemorlarni parvarish qilish.

НАУКА СТОМАТОЛОГИИ, ЕЕ ЗНАЧЕНИЕ И ВАЖНОСТЬ В МЕДИЦИНЕ

Аннотация: Подробнее изучая, как зубы и десна связаны со здоровьем в целом, мы видим, что стоматология – это отдельная область, которая очень тесно связана с медициной. Наши исследования, подкрепленные изучением серьезных медицинских и биологических журналов, показывают, что стоматологическая помощь реально помогает выявлять заболевания на ранних стадиях, замедлять их развитие и в итоге улучшает качество жизни. Ученые постоянно находят связь заболеваний сердца, проблем с уровнем сахара в крови и даже инфекций с тем, что происходит у нас во рту. Это прямо удивительная информация. Один узбекский ученый рассказывает, что сегодня вся мировая стоматология сталкивается с определенными препятствиями. Вот, например: людей,



которые ходят к врачам, ну очень мало. Из-за этого многие проблемы с зубами замечаются слишком поздно. Ну и профилактика у нас, прямо скажем, хромает. Сейчас разрабатываются такие решения, которые основаны на уже проверенных данных. Всё это поможет стоматологам участвовать в общем деле наравне с врачами и больницами в их работе. Стоматология – это не просто про лечение зубов, это ещё и важная часть того, как мы заботимся о нашем общем здоровье и пытаемся сделать его лучше для всех.

Ключевые слова: профилактическая медицина, системные заболевания, общественное здравоохранение, стоматологическое образование, интеграция здравоохранения, клиническая стоматология, медицинская значимость, патология полости рта, междисциплинарная медицина, уход за пациентами.

INTRODUCTION.

Dentistry (Greek "stomatos" - mouth and "logos" - science, teaching) is a branch of clinical medicine; it studies diseases of the organs of the oral cavity: tongue, lips, pharynx, oral mucosa, as well as the maxillofacial system and adjacent areas, their causes, and methods of preventing these diseases. Despite the history of medicine spanning several centuries, dentistry is one of the youngest branches of medicine. Maxillofacial surgeons and dentists played a major role in the development and progress of dentistry.

Dentistry really changed from just fixing teeth to being a whole medical field that helps keep people healthy. Nowadays, medical studies are really showing us that having a healthy mouth is a huge part of feeling good all over. It's truly connected to what's happening throughout our whole body, which is a key insight. You know, what's happening in your mouth can actually tell us a lot about your overall health, or even cause other issues in your body. That's why dentistry is a really important part of modern healthcare.

The international health organizations are reporting that over three billion people are impacted by oral diseases. Five billion people around the world have them, making these diseases some of the most common ones that don't spread from person to person. Think about it this way: when you have tooth decay, gum disease, or other mouth infections, it's not just about a sore tooth or trouble chewing. These issues really mess with your whole body, causing inflammation that can make other long-term health problems even worse. These numbers really show something important: folks often miss how big a deal oral health is, both for our bodies and our social lives.

Biomedical science has come a long way. It's really shown us just how much dentistry and other areas of medicine are linked up these days. Did you know that not taking care of your teeth can lead to other health problems? Studies show a clear link between bad oral health and a higher chance of heart disease, serious diabetes issues, breathing problems, and even issues during pregnancy. You might have seen how these discoveries have changed dentistry. It used to be its own thing, but now it's much more connected to other areas like internal medicine, surgery, and public health.

Dentistry has a lot to offer when it comes to stopping problems before they start. Getting regular dental check-ups, catching issues early, learning good oral hygiene (like how to brush and floss), and understanding your unique risks really helps keep your teeth healthy. It means you're less likely to need confusing and expensive dental work down the road. Studies show that



if we focus on preventing problems with our teeth, we can cut down on serious oral diseases by a good chunk like 30% to 40%. This really just goes to show how important dentistry is for building healthcare systems that last.

For Uzbekistan's healthcare to really grow, we need to focus on making dentistry a stronger scientific field. They're making some changes in healthcare right now, trying to get better at preventing sickness, making it easier for everyone to get good medical care, and getting different doctors to work together more smoothly. Dentistry is really important because it helps people one by one and also improves the health of whole communities. This article aims to break down the science behind dentistry, why it matters, and how it fits into the bigger picture of medicine, all by looking at what researchers worldwide are finding and some of the tough medical issues we're facing now. This study aims to show that dentistry is a really important medical field. We think its growth is key to making public health better, pushing forward preventative care, and making sure medical treatment looks at the whole person.

MAIN PART.

Dentistry really pulls from a bunch of different fields. It's built on a mix of clinical medicine, biology, chemistry, materials, science, and even public health. Today, what we do in dentistry is built on science. We look at research to figure out why oral diseases start, how they develop, and what happens as they get worse. We also study how these issues in your mouth are linked to your overall health. It's pretty clear that when we look at how far molecular biology and microbiology have come, we've really started to understand a lot more about oral biofilms, how inflammation works, and our body's immune reactions. These topics are super important for anyone doing research in both dentistry and general medicine.

You know, one of the biggest reasons dentistry really matters to medicine is that we've found a solid link between what's going on in your mouth and other diseases in your body. Around the world, studies are showing that gum disease is linked to a higher chance of heart problems, strokes, and metabolic syndrome. When your mouth is always inflamed, it can really add to the general inflammation throughout your body. This then makes other long-term illnesses even worse. This tells us that checking your teeth can actually give us an early heads-up about other health issues, which really shows how important regular dental check-ups are for your overall medical health.

Dentistry is also really important for keeping you healthy in general. Catching tooth decay early, checking gums, and teaching people how to care for their mouths really goes a long way in stopping serious problems with both their teeth and their overall health. When folks have good dental programs that focus on preventing issues, you often see they keep their teeth longer and are generally healthier. When dentistry focuses on stopping problems before they start, it really helps meet public health goals and makes healthcare work for the long haul.

New tech has really solidified dentistry's spot in modern medicine. Things like digital imaging, CAD/CAM, and treatments that are less invasive have really helped us get better at finding problems and fixing them. These technologies help us step in sooner, cut down on treatment time, and keep patients safer. So, dentistry plays a bigger role in making life better and helping people get back to normal function, especially as more folks get older. Breaking it down, we really need to consider how oral health affects someone's overall well-being and ability to get by in daily life. When your teeth are not doing so well, it can really mess with what you eat, how



you talk, and even how you look. All of these things play a big role in your mental health and how you engage with other people. Restoring a person's ability to chew and smile isn't just about looking better; it's a real health need that helps with their mental well-being and how well they connect with others.

Dentistry really helps train skilled medical pros who work with doctors, surgeons, and public health folks. It's an important part of education and institutions. When different medical folks work together, it really helps us give better care to patients, especially for those with long-term illnesses or tough medical situations. Working together like this shows a change in how we think about healthcare, where dentistry is now seen as a really important medical field. Even with all these neat improvements, we still have some tricky bits to figure out if we want to truly weave dentistry into our regular healthcare systems. It's clear that the lack of readily available dental care, along with not enough specialized dentists spaced out where people need them, and the fact that we're not focusing enough on stopping problems before they start, are all still taking a toll on people's health. To really tackle these problems, we need to shake things up at the policy level. That means putting more money into dental research and weaving oral health into our national health plans. How we do research We did this research using a bunch of different methods to look at dentistry. Our main goal was to see dentistry as a medical field and figure out how important it is in healthcare today. We combined theory, analysis, and comparison to make sure our findings were sound and deeply understood. You see, with this approach, we can look at dentistry not just as something you do in a clinic, but as a big part of overall general medicine and keeping people healthy. We looked at lots of scientific papers from all over the world; that was the main way we did our study. We looked at peer-reviewed articles, World Health Organization reports, and stuff published in big scientific databases to figure out what's new, what people have found, and what problems still need figuring out in dental science. This approach let us bring together worldwide research on oral health, illnesses that affect the whole body, and ways to stop them from happening.

We looked at dentistry's place in various healthcare setups to see how they compared. We looked at how prevention, getting to the dentist, and mixing dental care with regular medicine all played a part. This helped us see what really worked and where things were missing. You might notice this approach helps you tell the difference between problems unique to a situation and solutions that work pretty much everywhere. I looked over policy papers, clinical guides, and educational rules to see how dental and medical care fit together. "We could really pinpoint the main priorities in healthcare strategies this way, and it showed us exactly where dentistry fits into the bigger medical picture." "We looked at the institutional and regulatory side of dental science, which gave us some helpful ideas." We also used a mix of analysis and synthesis to bring together ideas from lots of different places, creating a clear picture of what we found. This approach really let us get a handle on dentistry's scientific importance, linking what we see in clinics to bigger public health ideas and how money and society play a role. What we found and what it means, what this study really shows is that dentistry is super important in medicine today. It's not just about fixing teeth; it actually plays a key role in keeping people healthy in the first place too. Looking at studies from around the world, it's clear that how healthy your mouth is really connects to your overall well-being. If you skip out on taking care of your teeth, you're actually bumping up your chances of getting other health problems. You can see that dentistry helps not just with fixing issues in your mouth, but also with catching bigger health problems early on. What we found is that gum disease directly links up with a bunch of other long-lasting



health problems. It seems like folks with serious gum disease are 20-30% more likely to run into heart problems than people with healthy mouths, according to scientific information we've got.

What this means is that ongoing inflammation and germs from your mouth can spread throughout your body. This really shows how important dentistry is, not just for your teeth, but for helping doctors figure out what's going on and stopping problems in other parts of your body. Turns out, if we just focus on stopping dental problems before they start, we can really cut down on healthcare costs. Countries that have good preventive dentistry programs actually see fewer people losing their teeth, less need for big surgeries, and generally, folks have a better quality of life. Catching dental issues early and teaching folks how to take care of their teeth can really save money in the long run and help create healthcare systems that actually work. What's really interesting is how much your dental health can mess with your head. When oral problems aren't taken care of, they can mess with your nutrition, how you speak, your confidence, and even how you engage with others, studies suggest. These things really hit your mental health and how you feel generally. It's clear that successful dental treatments aren't just about fixing your teeth; they also have a big impact on your mind and how you interact with others.

Another good thing is how technology in dentistry has really helped patients get better results. Things like digital diagnostics, less invasive surgery, and materials that work well with the body have made treatments more precise and safe for patients. Looking at the numbers, it seems pretty clear that newer dental tech helps avoid problems and speeds up healing. This means treatments are just better and people are happier with the results. So, even with all these cool new things, we still run into the same old problems. It's a big problem that many people, especially in the countryside or those with less money, just can't get to a dentist. A lot of folks only go to the dentist when their problem is already pretty bad. By then, it's harder for us to fix, and it ends up costing them more money.

These findings really show how important it is to bring dentistry into our main healthcare system. Looking at how healthcare is growing in Uzbekistan, these findings really show us that we need to focus more on preventing dental problems and getting different health professionals to work together. To really make public health better, we need to do a few key things: make dental care easier for people to get, give better training to those working in the field, and start including oral health info in how we track national health. The human-centered approach is really key here. It allows us to design products that truly respond to what people need. By focusing on understanding human behavior and their experiences, we can make digital products that are not just easy to use, but also genuinely enjoyable. This way, we're not just building something functional; we're creating solutions that make a real difference in people's lives. The study really shows us that dentistry is a basic medical science. Its importance goes way past just fixing problems in your mouth. When we look closely, it's clear that your mouth's health and your body's overall health are always tied together. If you don't take care of your teeth, it can really contribute to other health problems getting worse or even starting. Dentistry is interesting because it's all about both fixing problems and stopping them before they start. That's why it's a key part of healthcare these days. It's really clear from what we found that dentistry is super important for catching problems early and stopping diseases before they even start.

Getting regular dental exams and doing preventive stuff can catch signs of long-term health problems early on, which really helps lessen the strain on our healthcare system. This way of doing things really backs up preventive medicine, which helps everyone in the community stay



healthier. It's pretty clear that dental science really brings together a lot of different fields. When dentistry teams up with internal medicine, surgery, public health, and even biomedical research, it really makes a difference in caring for patients. We can now manage tough medical problems together. This shows we're moving towards a whole-person approach to health, where oral health is a really important part. The study also shows us how much dentistry matters for people's social lives and their mental well-being.

Good oral health really matters because it touches so many parts of our lives. It's not just about what goes on in your mouth; it impacts how you feel day-to-day, how you interact with others, and even your overall happiness. Taking care of our teeth is therefore a medical necessity and a social responsibility. Taking care of oral diseases helps with bigger goals like human development and making sure everyone feels included. For Uzbekistan, developing dentistry as a proper medical science is really key to improving healthcare. To really make public health better, we need to do a few things: make it easier for people to get preventive care, put some money into dental schools and research, and actually include oral health stuff in our national health plans.

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