Dr Atsushi Izawa is conducting community-based research on the connection between oral and systemic health in an effort to shed more light on this understudied topic, ultimately improving the prognosis for those with systemic diseases.

Impact Objectives

• Community-based research focusing on the oral-systemic connection
• Explore how oral health connects to systemic health

A picture of health

What are you currently researching?

We conduct community-based studies that focus on the oral-systemic connection. We believe that chronic sustained periodontitis is a potential cardiovascular risk. Our team, the Dental and Medical Collaboration for the Advanced Medical Prevention (D-CAMP) in Matsumoto, has demonstrated that the number of lost teeth was significantly associated with the presence of atherosclerotic cardiovascular diseases, cardiometabolic diseases, and skeletal diseases. Oral health, especially the number of teeth, should be a window into the systemic health.

Why is the link between oral health and the presence or development of systemic diseases an important topic to study?

There is a substantial need to examine a number of points, including: that not all systemic diseases are associated with oral health; and the specificity, characteristics, and/or significance of each association still requires to be elucidated. It has not been clearly demonstrated whether the association between oral health and systemic diseases is causal relation or simple coincidence. The evidence of a causal link has not been strong enough to be noted in clinical guidelines or consensus reports for the prevention, diagnosis and treatment of related diseases. An important question is whether periodontal therapy could improve the status of systemic diseases.

Your latest work is focusing on community-based research on the oral-systemic connection. What does this entail?

Based on the results of our study, the D-CAMP in Matsumoto is taking an interprofessional team approach to providing public health education and optimal healthcare and services. Our approach may pave the way for pre-primary prevention. Our focus is not only on the pathophysiological aspects, but also on lifestyle and/or socio-behavioural aspects of the link between periodontal disease and co-morbidities. My research contribution is also recognised and acclaimed as a regional contribution of Shinshu University.

Are there any results from this work that you are particularly pleased with?

The results of our community-based study are in line with previous reports demonstrating possible associations between oral health and systemic diseases. Moreover, the most important thing for us is that our study supports previous findings published by Dr Jun-ichi Suzuki of University of Tokyo, Japan, and reveals the correctness of his hypothesis and idea.

What can you do to make sure this work helps to establish preventive medical strategies?

This question is the most important for us when it comes to designing our future plan. The D-CAMP is constructing an interprofessional team to translate research findings to real-world health promotion. It should be noted that we need to carefully present our data, because limited evidence exists not only for the causal association between oral and systemic diseases, but also for any benefits of periodontal treatment.

What is your main target for the pre-primary prevention? Who will receive the benefit of oral health care most?

Patients in a dental clinic should be referred to medical check-up if they have chronic or treatment-resistant periodontitis. This is because the sustained periodontal inflammation may be associated with the development of remote organ injury. Dental and medical collaboration is strongly recommended for diabetic patients with periodontitis, as a bidirectional relationship between periodontitis and diabetes has been demonstrated. Successful periodontal treatment can improve, at least partly, glycaemic control of diabetic patients.
Community-based oral research

Researchers from the Dental and Medical Collaboration for the Advanced Medical Prevention in Matsumoto, Japan, are exploring the connection between oral and systemic health in the hopes of improving health and reducing healthcare costs.

D-CAMP’s work is both collaborative and community-based, and is divided into four phases. We take a multi-step approach to advancing medical prevention, outlines Izawa. He notes that the first step is community-based research to explore the link between oral health and the presence of systemic diseases. They then progress to clinical collaboration between dentists and physicians to identify and to intervene subjects with high health risk. Step three encourages participation of health professionals, including dental hygienists, nurses/public health nurses and pharmacists, to organise interprofessional teamwork, and step four entails public health education and the promotion of optimal healthcare and services through an interprofessional team.

We are promoting public health education and providing optimal healthcare and multidisciplinary services through an interprofessional team.