EUROPEAN REGIONAL ORGANIZATION
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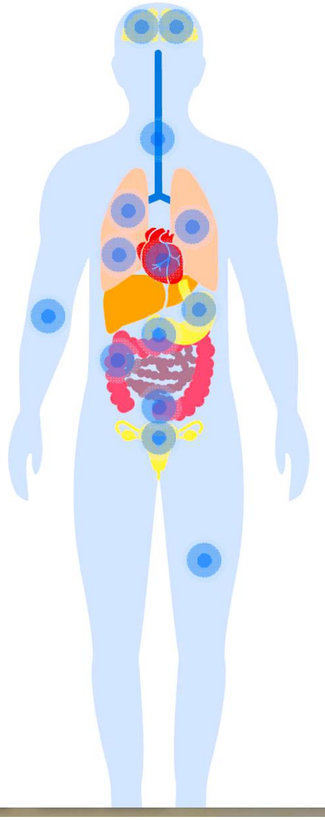
FDI World Dental Federation

Whole Body Health Diagram

← Return to FDI Main Website



Continuing Medical Education in Dentistry
Addressing Obesity as a Shared Risk Factor

- ERO project: Proposal for Global Dental Education Framework

Prof. Marzena Dominiak
Prof. Kinga Grzech-Leśniak

Wroclaw Medical University

GLOBAL SCALE OF OBESITY

World Health Organization

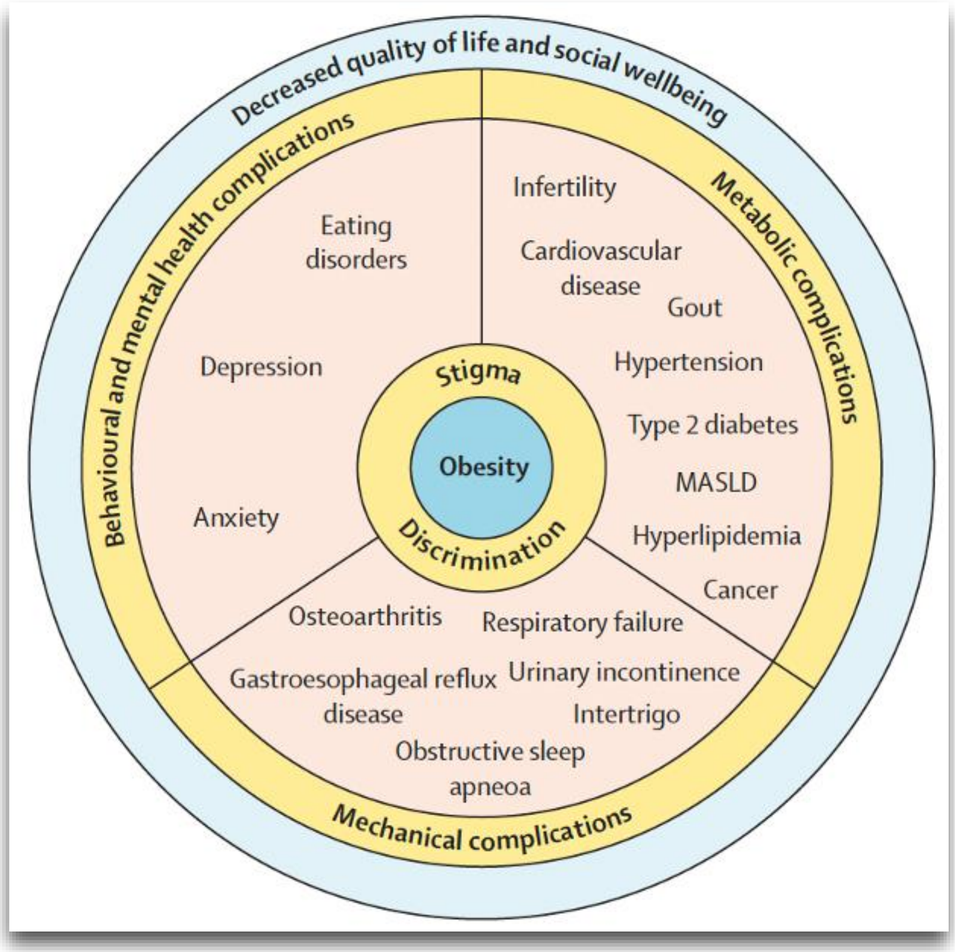
- 1 billion people living with obesity

2 x increase in adults since 1990

4 x increase in children and adolescents

- chronic inflammatory disease

obesity - is a **chronic inflammatory disease**



[Lancet 2024]

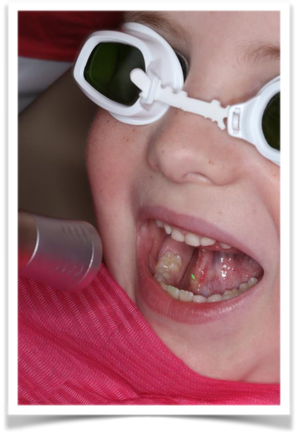
Ildiko Lingvay et al.:
Obesity in adults. Lancet.
August 16, 2024

https://doi.org/10.1016/
S0140-6736(24)01210-8

WHY DENTISTRY ?

Dental professionals are **uniquely positioned**: we see patients regularly

- frequent patient contact
- preventive role already established
- diet & behavior counseling routine
- untapped potential - opportunity **to integrate systemic health screening**



the most effective strategy is simple: **connect weight to oral health**

Patients accept the discussion when it is clinically relevant

EVIDENCE: SYSTEMATIC REVIEW

Systematic review findings:

- only ~29% perform weight screening
- ~25% discuss weight

High patient acceptance:

- 83% patients SUPPORT screening
- 85% support discussion

Major barriers:

- time constraints
- lack of training
- weight stigma

A recent systematic review shows **a striking gap**:
despite strong patient acceptance, **implementation is low**

only about one-third of dentists perform screening

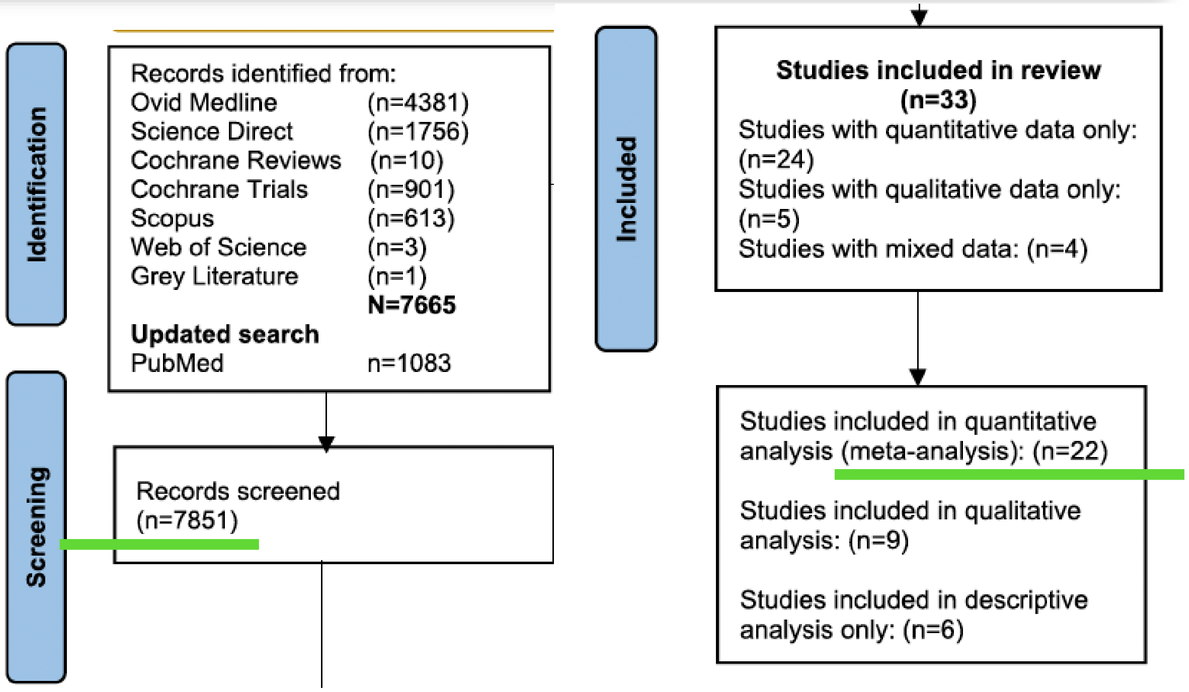
DOI: 10.1111/obr.13726

REVIEW

OBESITY Reviews WILEY

Public and dental teams' views about weight management interventions in dental health settings: Systematic review and meta-analysis

Jessica F. Large | Claire Madigan | Henrietta Graham | Gregory J. H. Biddle | James Sanders | Amanda J. Daley

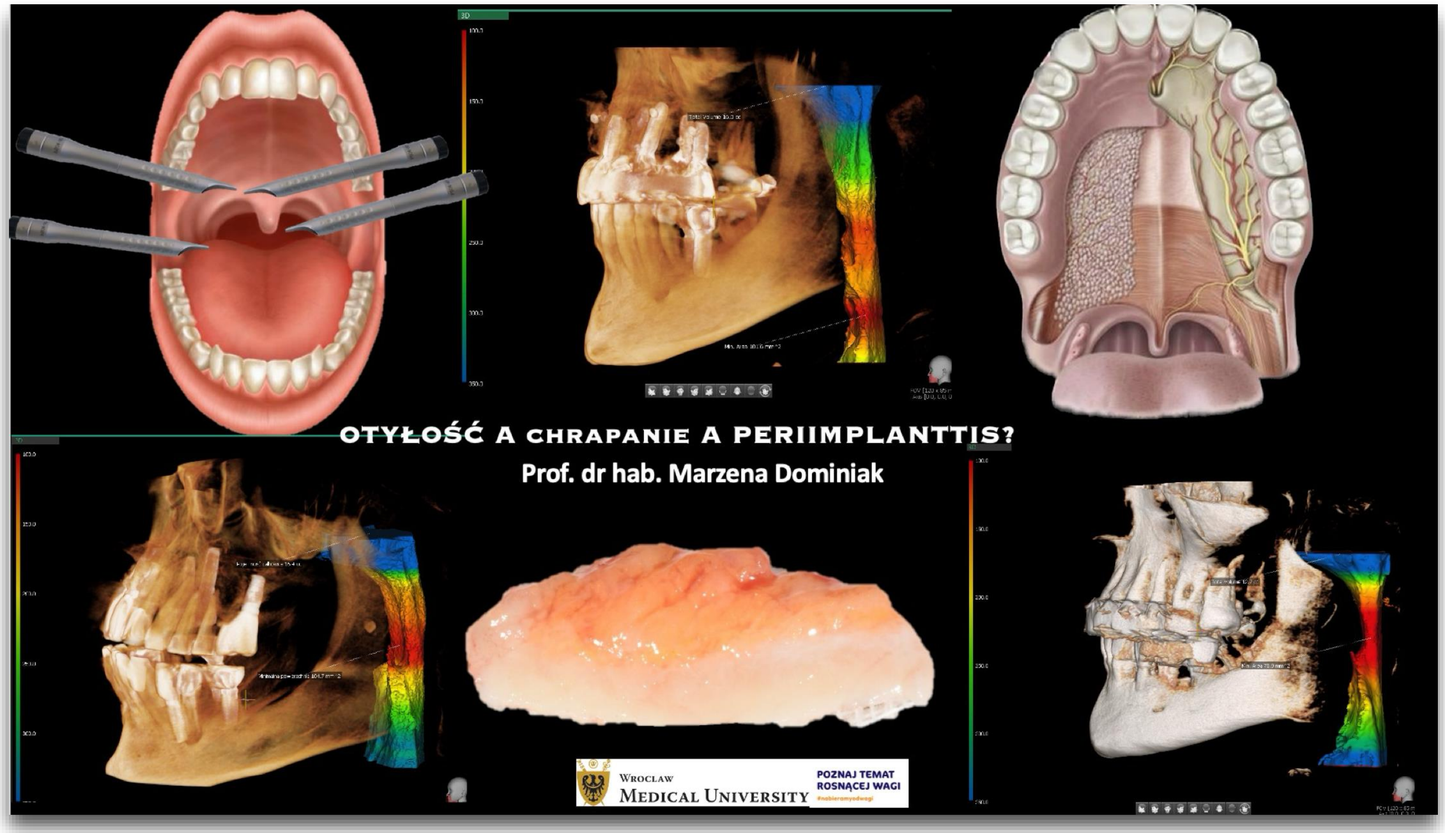


ORAL MANIFESTATIONS OF OBESITY

Obesity is not abstract for dentists

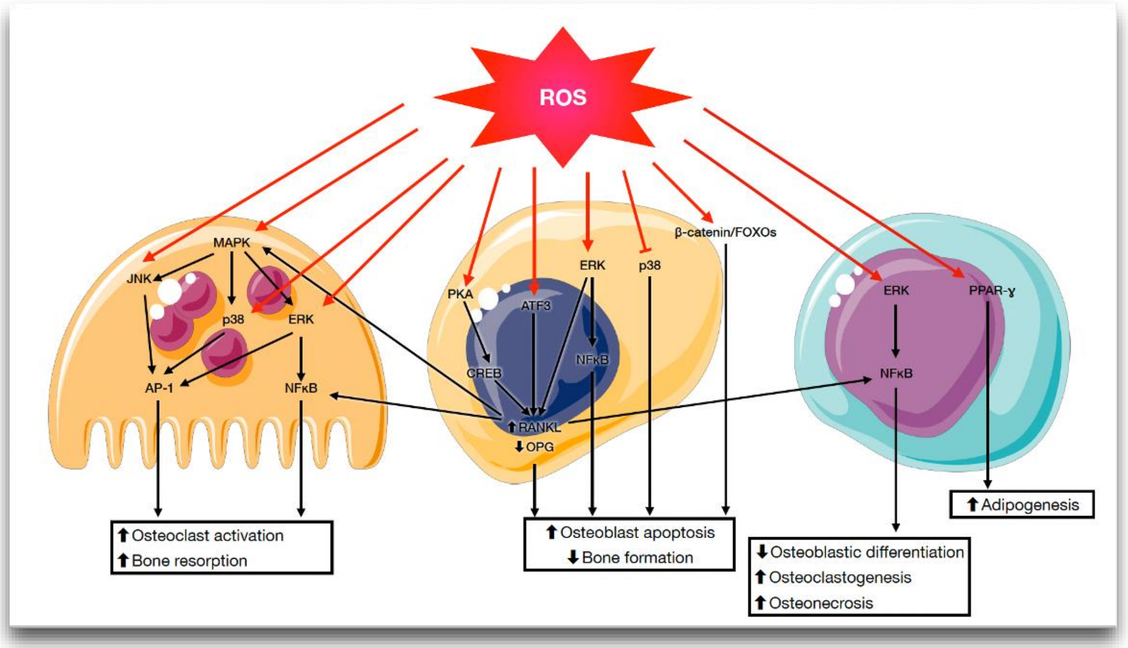
Dentistry perspective (manifestation daily):

1. Caries
2. Periodontitis & periimplantitis
3. Surgical complications (healing, dry socket)
4. Bone marrow adiposity
5. Malocclusion (vitamin D-related)
6. Mucosal changes

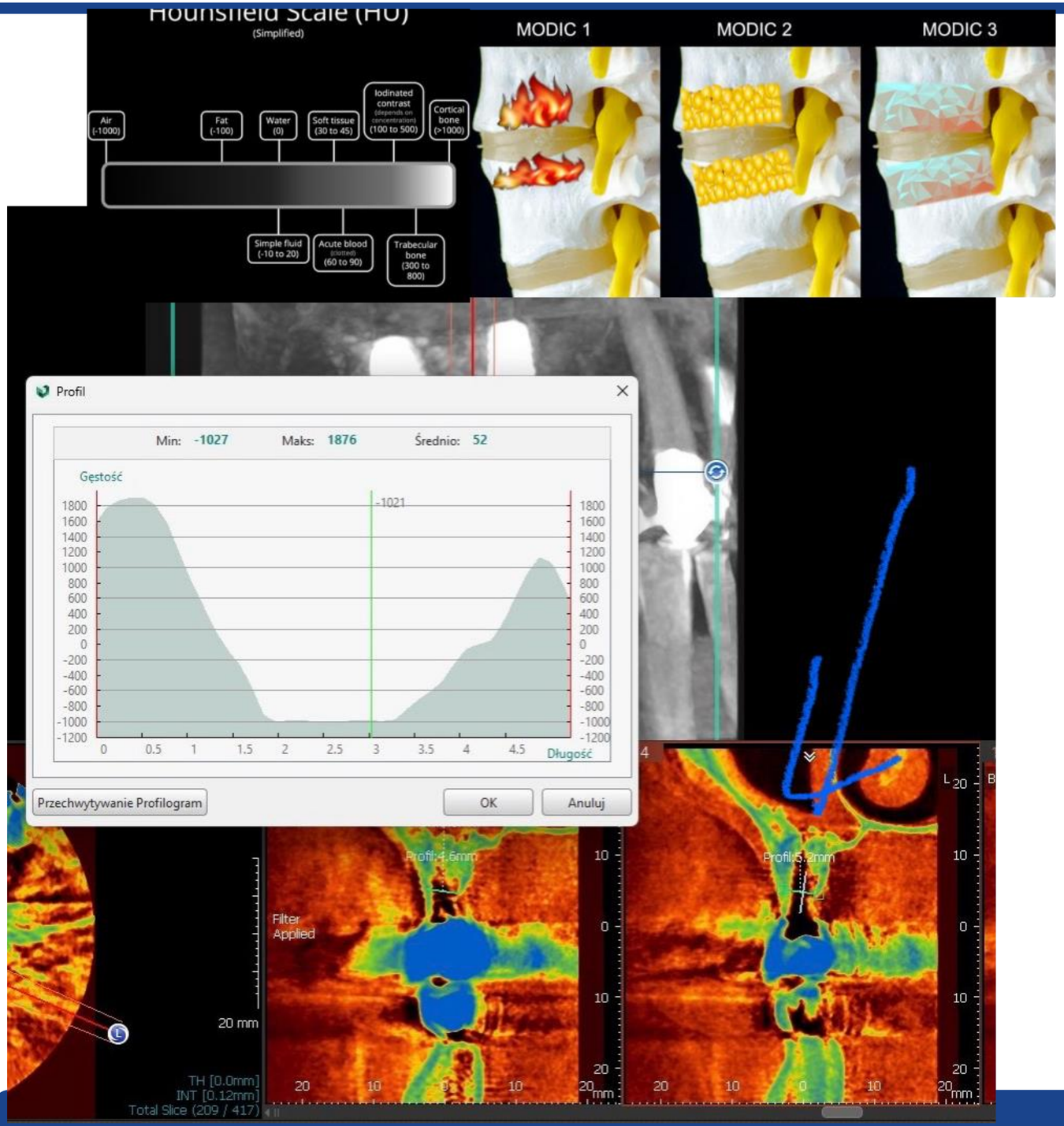


PATHOPHYSIOLOGY LINK

- Chronic low-grade inflammation
- Cytokines: IL-6, TNF-α
- Shared pathways: obesity ↔ periodontitis
- Microbiome & metabolism



the connection is biological:
systemic inflammation links obesity and periodontal disease, with shared cytokine pathways and metabolic dysregulation



International Journal of *Molecular Sciences*

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Review

Fatty Degenerative Osteonecrosis of the Jaw: Bridging Molecular Insights and Clinical Practice—A Scoping Review

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Abstract: Fatty degenerative osteonecrosis of the jaw (FDOJ) is a chronic, aseptic inflammatory condition that is characterized by molecular disruptions in bone metabolism and necrotic bone marrow within the jawbone cavities. In contrast to the overt clinical signs typically observed in osteopathies, FDOJ frequently presents with a "silent inflammation" phenotype. The electronic databases PubMed, Scopus, and Embase were searched using appropriate search terms, and the methodology was performed according to PRISMA-ScR guidelines. The elevated expression of inflammatory mediators, particularly C-C motif Chemokine Ligand-5/Regulated on Activation, Normal T Cell Expressed and Secreted (CCL5/RANTES), fibroblast growth factor-2, and interleukin-1 receptor antagonist, distinguishes FDOJ at the molecular level and links it to systemic inflammatory and autoimmune diseases. These immunohistochemical markers play a pivotal role in the pathogenesis of chronic inflammation, immune response regulation, and abnormal bone remodeling. Advanced diagnostic tools, such as conebeam computed tomography and trans-alveolar ultrasonography, facilitate the detection of pathological changes that are not easily discernible with conventional radiography. Surgical intervention remains the primary treatment modality, often complemented by therapies that target these molecular pathways to modulate chronic inflammation. This article underscores the importance of integrating molecular diagnostics, advanced imaging, and clinical data for effective FDOJ detection and management.

Keywords: adipocytes; bone marrow; cytokines; inflammation; jaw; osteolysis; osteonecrosis

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1. Introduction

Fatty degenerative osteonecrosis of the jaw (FDOJ) is an inflammatory defect characterized by the formation of jawbone cavitations containing necrotic bone marrow. This process can manifest as a silent and asymptomatic condition, which has been described by many as silent or subclinical inflammation [1]. One specific feature of FDOJ allows it to be distinguished from other osteopathies, such as acute and chronic osteomyelitis. Unlike these conditions, FDOJ is painless and is often diagnosed spontaneously during routine screenings in dental offices [1,2]. The first cases of avascular necrosis of the medullary bone were reported at the beginning of the 20th century by the scientist G.V. Black (1915). The initial description of the pathology associated with adipose tissue replacement of healthy bone marrow was presented by Bouquot (1990) as neuralgia-inducing cavitational osteonecrosis (NICO), while examining specimens, obtained from numerous oral surgeons, which contained fatty osteonecrosis from patients experiencing facial neuralgia. A review of the literature reveals the existence of numerous other terms, including FDO, BMDJ, and FDOJ [3].

Continuing Medical Education gap

Current gap:

- **no standardized education**
- **low training** in obesity
- **lack of guidelines**
- not in dental curricula

Despite evidence, obesity is **still poorly integrated into dental education**

From concept to evidence:

- need to define real educational needs
- global variability in practice
- lack of standardized data in dentistry
- **First step: structured data collection**

Multicenter Proposal **- Global Questionnaire Study**

Aim:

- **Assess** dentists' knowledge, attitudes, and practices (KAP)
- **Identify** barriers and facilitators
- **Define** educational needs in dentistry

Methods:

- Standardized questionnaire (global)
- Multicenter participation (universities, clinics)

Data collected:

- Clinical practice (screening, counseling)
- Attitudes toward obesity management
- Training background
- Perceived barriers
- Patient interaction patterns

Variables:

- BMI, oral status
- diet, hygiene
- biomarkers (CRP, IL-6)

Outcomes:

- knowledge gaps
- clinical behavior
- patient acceptance

the study can integrate clinical, behavioral, and biological markers, linking oral health and obesity

CALL TO ACTION

- **Dentistry must engage in obesity prevention**
- **Education** is the key
- **FDI leadership** opportunity
- **Global impact on health**

Dentistry must move from isolated oral care **to integrated health care**

Education is the key - and FDI can lead this transformation


#MouthProud #WOHD23
World Oral Health Day
20 March
BE PROUD OF YOUR MOUTH
Look after your oral health for a lifetime of smiles
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Addressing Obesity as a Shared Risk Factor

- Thank you -

Prof. Kinga Grzech-Leśniak
Prof. Marzena Dominiak

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