Malocclusion Matters

The effects of misaligned teeth may lead to numerous conditions that impact patients' physical and psychological health.

Oral Health

Misalignment contributes to issues that dentists address every day.

Hygiene[1,2]

- Increased food debris
- Hard-to-clean areas

Dental Health[3-9]

- Dental caries*†
- Bruxism (grinding, clenching)*
- Uneven pressure distribution*†
- Abfraction (loss of tooth structure caused by mechanical loading forces)*†
- Tooth fracture*†

Periodontal Health[1,10,11]

- Gingivitis (bleeding gums)
- Periodontitis (receding gums, exposed roots, bone loss)

TMJ Health[12-18]

- Difficulty chewing
- Temporomandibular joint disorder (e.g., jaw pain, clicking)*†

Systemic Health

Research continues to uncover links between the effects of malocclusion and a range of systemic disorders.

Neurological[19,20]

- Headache*†
- Alzheimer's disease

Airway / ENT[1,21,22]

- Asthma
- Obstructive sleep apnea/snoring*†

Cardiovascular / Endocrine[1,23-26]

- Atherosclerosis
- Cerebrovascular disease
- Diabetes

Gastrointestinal[1,13,27]

- Gut dysfunction
- Digestion and nutrition issues

Skeletal[28,29]

- Changes to facial structure
- Postural impacts: neck, spine, hips*†

Quality of Life

The effects of malocclusion can extend to all aspects of patients' daily life.

Physical Wellness[12,30-35]

- Pain and discomfort
- Neglect of oral hygiene
- Functional limitations (speech, eating)
- Effects on physical appearance

Social / Emotional Wellness[2,30,31,35-37]

- Lack of confidence and isolation
- Anxiety and depression
- Interpersonal difficulty

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*Impact varies by type and severity of malocclusion.
†Evidence is mixed. Additional research is needed.
ENT, ear, nose, and throat; TMJ, temporomandibular joint

Understanding the Effects of Malocclusion on Overall Health

Malocclusion is one of the most prevalent conditions encountered in dental practice. In addition to esthetic, psychological, and social effects, misaligned teeth are associated with a range of oral health problems that can adversely impact systemic health. For example, patients with malocclusion are at increased risk of developing periodontal disease, which is itself a significant risk factor for cardiovascular disease, cerebrovascular disease, and Alzheimer's disease.

Although some of the data on the broader impacts of malocclusion are mixed, as the research base evolves the relationship between overall health and the various forms and grades of malocclusion will come increasingly into focus. Understanding the potential links between misaligned teeth and patients' physical and psychosocial health will be critical to counseling patients on the benefits and risks of orthodontic treatment.

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