CONDITION

Malocclusion and orthodontics

Malocclusion means the teeth or jaws do not meet in their usual alignment.

WHAT IT IS
Misalignment of the teeth, jaws, or bite

BODY SYSTEM
Mouth, teeth, and jaws

MAIN SYMPTOMS
Crowded teeth, crooked teeth, uneven bite, chewing difficulty

WHAT CAUSES IT
Inherited growth patterns, tooth development, habits, or injury

HOW IT IS DIAGNOSED
Dental examination, bite assessment, sometimes X-rays and scans

MAIN TREATMENT
Orthodontic appliances, braces, aligners, or jaw surgery

CAN IT BE CURED?
Sometimes - treatment can correct alignment

IS IT AN EMERGENCY?
No, usually assessed routinely

LONG-TERM OUTLOOK
Usually manageable, but teeth can shift again

Overview

Malocclusion means that your teeth or jaws are not aligned in the usual way when you close your mouth. You may have crowded, twisted, widely spaced, or prominent teeth. Your upper and lower teeth may also meet unevenly.

Some forms mainly affect appearance. Others can make biting, chewing, speaking, or cleaning the teeth more difficult. A severe difference in jaw position may affect facial growth or place extra strain on certain teeth.

Orthodontics is the area of dentistry that assesses and treats tooth and jaw alignment. Treatment may use fixed braces, removable appliances, or clear aligners. Some people with a major difference between the upper and lower jaws may also be offered jaw surgery.

Not every malocclusion needs treatment. Small differences in alignment are normal and may

not cause problems. An orthodontic assessment considers your symptoms, dental health, preferences, and whether treatment is likely to provide a meaningful benefit.

Symptoms

Malocclusion does not always cause symptoms. You may first notice it in photographs, while cleaning your teeth, or during a dental examination.

Possible features include:

Jaw clicking, pain, and headaches are sometimes blamed on the bite. These symptoms can have several causes, and changing the bite does not reliably cure every jaw-joint problem. A dental assessment can look for other explanations.

- crowded, overlapping, rotated, or widely spaced teeth
- upper front teeth that stick out
- lower teeth that sit in front of the upper teeth
- front teeth that do not meet when the back teeth touch
- upper teeth that cover much of the lower front teeth
- upper back teeth that bite inside the lower teeth
- difficulty biting through food or chewing evenly
- accidental biting of the cheeks, lips, or roof of the mouth
- speech differences linked to tooth or jaw position
- difficulty brushing or cleaning between crowded teeth

Causes and risk factors

Malocclusion often develops through a combination of inherited features and childhood growth. You may inherit the size and shape of your jaws, while your teeth may be relatively large or small for the available space.

Other factors can affect alignment:

An impacted tooth is one that has not come through the gum normally, often because it lacks space or is growing in an unusual direction.

Malocclusion is not usually caused by something you did wrong. Many cases reflect natural differences in tooth and jaw development.

- missing, extra, unusually shaped, or impacted teeth
- baby teeth lost earlier or later than expected
- tooth decay or injury that changes tooth position
- prolonged thumb, finger, or dummy sucking
- habits that repeatedly push the tongue against the teeth
- cleft lip and palate or other conditions affecting facial development
- facial or jaw injury
- gum disease and loss of support around adult teeth

Diagnosis

A dentist or orthodontist diagnoses malocclusion by examining your mouth and watching how your teeth meet. An orthodontist is a dentist with additional specialist training in tooth and jaw alignment.

The assessment may include:

X-rays can show teeth that have not erupted, tooth roots, missing or extra teeth, and the relationship between the teeth and jaws. They are not required for every person or at every visit.

In children and teenagers, the timing of growth and tooth eruption matters. Some problems are monitored until more adult teeth appear. Others may benefit from earlier treatment. Adults can also have orthodontic treatment, although gum health, existing dental work, and missing teeth may affect the options.

- checking the position and condition of each tooth
- looking at your bite from the front and sides
- measuring crowding, spacing, or jaw differences
- asking about chewing, speech, pain, previous injuries, and dental history
- taking photographs or a digital scan of your teeth
- making dental models from a scan or impression
- taking X-rays when they are needed for diagnosis or planning

Treatment and management

Treatment is based on what the malocclusion is doing, not only how it looks. Before starting, the dental team will usually want tooth decay and gum inflammation to be controlled. Keeping teeth clean is especially important while wearing an appliance.

Observation may be appropriate when the alignment difference is mild, stable, and not causing health or functional problems.

Fixed braces use small attachments bonded to the teeth and connected by wires. Gentle, controlled forces move the teeth over time. Fixed braces can treat many types of crowding and bite problems.

Clear aligners are removable trays that move teeth in planned stages. They must be worn consistently to work. They are suitable for some, but not all, patterns of malocclusion.

Other removable or fixed appliances may guide tooth movement, create space, or influence how the upper and lower teeth relate during growth. In selected cases, the plan may include removing teeth to make space. This is not necessary for everyone.

If the main problem comes from a substantial difference in adult jaw position, braces alone may not correct it. Orthodontic treatment combined with jaw surgery may then be considered. This involves assessment by both orthodontic and surgical teams.

Treatment usually requires regular appointments for adjustment and monitoring. Its length is influenced by the type of movement required, growth, missed appointments, appliance breakages, and how consistently removable appliances are worn.

After active treatment, you will usually need retainers. These hold the teeth in their new positions while the surrounding tissues adapt. Retainers may be removable or fixed behind the teeth. Long-term wear is often needed because teeth can continue to shift throughout life.

Complications

Untreated malocclusion does not always cause harm. However, crowded or overlapping teeth can be harder to clean, which may contribute to tooth decay or gum disease. A severe bite problem may cause uneven tooth wear, damage to prominent teeth, or difficulty biting and chewing.

Orthodontic treatment also has possible drawbacks. Temporary tenderness is common after an appliance is fitted or adjusted. Brackets and wires can rub the lips or cheeks.

Plaque left around braces can cause permanent pale marks in the enamel, tooth decay, or gum inflammation. Good brushing, cleaning between the teeth, and following dietary advice help

reduce these risks.

Other possible complications include:

Your orthodontic team should explain the expected benefits, limits, and important risks before treatment begins.

- shortening of tooth roots, usually small but occasionally significant
- gum recession, especially where gum or bone is already thin
- loss of tooth vitality after previous trauma
- allergic or sensitivity reactions to appliance materials
- teeth moving back toward their previous positions
- treatment taking longer or stopping early if dental health worsens

Prevention

Many forms of malocclusion cannot be prevented because they result from inherited jaw shape, tooth size, or differences in development.

Some acquired problems may be reduced by protecting dental health. Treating tooth decay and avoiding preventable early loss of baby or adult teeth can help preserve space and alignment. Regular dental visits also allow tooth eruption and jaw growth to be monitored.

If a sucking habit continues for a long time and begins to change the bite, a dentist can advise on supportive ways to stop it. Children should not be shamed or punished for these habits.

A mouthguard can reduce dental injury during contact or high-risk sports. It cannot prevent inherited malocclusion, but it may prevent trauma that could change tooth position.

Living with it and what to expect

Mild malocclusion may remain stable for years and have little effect on everyday life. Teeth can still move slowly with age, particularly if teeth are lost, gum support changes, or retainers are no longer worn.

During orthodontic treatment, you may need to adjust how you eat and clean your teeth. Hard or sticky foods can damage some fixed appliances. Removable aligners usually need to be taken out for eating and cleaned as instructed.

Tenderness often occurs for a short time after braces or a new aligner starts moving the teeth. Orthodontic wax may help with minor rubbing from braces. Ongoing or severe pain is not an

expected part of treatment and should be checked.

Most people can continue school, work, sport, and social activities during treatment. Wind instrument playing and contact sports may require temporary adjustments or a suitable mouthguard.

The final result is influenced by the starting problem, biological response, growth, dental health, and appliance use. Treatment can improve alignment, but it cannot guarantee perfect symmetry or stop all future movement. Retainer checks and routine dental care remain important after active treatment ends.

When to get medical help

Arrange a routine dental or orthodontic appointment if you are concerned about crowding, spacing, prominent teeth, an uneven bite, or difficulty cleaning or chewing. Children can be assessed while their teeth and jaws are still developing, but assessment does not always mean immediate treatment.

Contact your orthodontic service promptly if:

A broken brace is not usually an emergency, but it should be reported so the team can advise whether it needs an earlier appointment.

Seek urgent dental or medical care after a significant facial injury, especially if a tooth is displaced, the jaw will not close normally, or bleeding does not stop.

Call emergency services for trouble breathing or swallowing, rapidly increasing swelling of the mouth or face, or a severe allergic reaction. These are not typical effects of malocclusion itself.

- a wire is cutting the cheek and cannot be made comfortable
- a bracket, band, retainer, or other appliance becomes loose
- an appliance stops fitting properly
- pain is severe, persistent, or linked to a damaged tooth
- the gums become very swollen or bleed repeatedly
- you lose or break a retainer

Common questions

Can malocclusion fix itself?

Some small changes occur as a child grows and adult teeth erupt. Significant crowding or a

clear jaw mismatch is less likely to correct itself. A dental assessment can show whether monitoring or treatment is reasonable.

Do I need braces if my teeth are crooked?

Not necessarily. Treatment is more likely to be considered if alignment affects cleaning, tooth wear, chewing, speech, dental injury risk, or your wellbeing. Braces are one option, but some people can use aligners or other appliances.

Are clear aligners as effective as braces?

Clear aligners can work well for selected tooth movements. Fixed braces may provide better control for some complex movements, impacted teeth, or major bite corrections. The best option is based on the type of malocclusion rather than appearance alone.

How long does orthodontic treatment take?

There is no single treatment length. It is shaped by the complexity of the bite, the amount of movement needed, growth, dental health, and appliance use. Your orthodontist can give an estimate after assessment, but the schedule may change.

Does orthodontic treatment hurt?

Moving teeth commonly causes pressure or tenderness for a few days after fitting or adjustment. Braces may also rub the cheeks at first. Severe, worsening, or persistent pain should be reported rather than accepted as normal.

Will my teeth stay straight after treatment?

Teeth can move again because the tissues around them change and natural tooth movement continues throughout life. Wearing retainers as advised greatly reduces relapse, but it cannot guarantee that no movement will occur.

Sources

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