

## INTERCEPTIVE ORTHODONTICS

Years ago, most patients were not started in orthodontic treatment until age 12-14 when all their permanent teeth were in. It was often necessary to extract four permanent teeth to correct the bite when growth was nearly complete. In cases with a short lower jaw, the profile correction was often limited because of the lack of growth. Cooperation in wearing headgear and elastics often was lacking in some teens.

Interceptive orthodontics is a more recent concept where certain problems are treated early (around age 7-11) to take advantage of growth and better cooperation. This can result in fewer teeth extracted, better profile and facial esthetics, and great full smiles.

One procedure uses early arch expansion to provide more room for the permanent teeth that will be erupting later. When done between age 7-9, the results are more stable than trying to expand the permanent teeth, because the arch is already widened before the teeth are erupted and set in place. In cases of very large teeth, extractions may be a better option.

Another development is the use of orthopedic growth appliances to enhance jaw growth. These appliances were pioneered by some European orthodontists and were first seen in this country in the 70's. The difference in these appliances and plain braces is that they have more influence on the jaw growth (orthopedics) while braces excel in precision tooth movement (orthodontics). They are now widely accepted by many orthodontists and we have been using them in this office with impressive results since 1980. The American Association of Orthodontics now recognizes this concept and includes in it's name both "Orthodontics and Dentofacial Orthopedics".

There are several types of growth appliances, so we select the appropriate type to fit the patient's problems and age. Younger patients do well with removable appliances

that come in their choice of colors. The early teens usually prefer the fixed variety that can be combined with braces to shorten their treatment time.

Typically there will be two phases of treatment on younger patients. Phase I (interceptive) might involve wearing a removable growth appliance like a Frankel or bionator a year or so then going into a rest period of night wear until the permanent teeth erupt. Phase II (orthodontic) would probably involve braces for twelve to eighteen months. The second phase is simpler, shorter, and more economical than full treatment with one phase. This is possible because most of the difficult problems like jaw discrepancies, crowding, and habits were corrected earlier.

The two phase approach will usually result in completion of treatment at the earliest possible age, and provides a superior result in most cases. The down side is total treatment time is longer, although much of that time is the rest period waiting on teeth between phases. There is also a slightly greater total cost with two phases, but payments are extended over more time to make it more affordable.

Patients in the 12 to 13 year range that need growth guidance can still get some improvement using the fixed orthopedic appliances like the Herbst or MARA (Mandibular Arch Repositioning Appliance). These can be combined with braces so the correction can be done in one phase lasting 24 to 30 months. This approach still reduces the percentage of extractions and provides better profile changes than conventional braces alone.

For more details on Interceptive Orthodontics see the article "Importance of Orthodontic Diagnosis for the General Practitioner" in the article section on this web site.

