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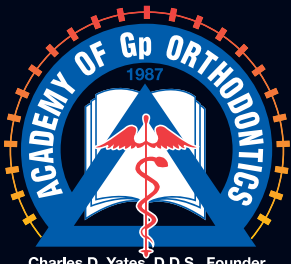
For Practitioners Of Orthodontics

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Therapies in
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Charles D. Yates, D.D.S., Founder

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BIOLINERS™ :

What Can They Do For Your Patients?

By Jeffery W. Gerhardt, DDS



Most dentists are aware of Invisalign or Raintree Essix plastic teeth aligners. So when I was requested to write an article about teeth aligners, I wanted to discuss a topic that most dentists are not familiar with – Bioliners™. An orthodontic lab named Five Star Orthodontic developed the concept of Bioliners™. This clear appliance can be used for minor tooth movement.

What Is a Bioliner™?

A bioliner is a tooth aligner made of 0.030mm ultra clear plastic with a soft thermal plastic insert. To make a bioliner, the dentist first sends Five Star a set of patient models. The dental lab will reset the teeth to be aligned in the stone models. They make a soft thermal plastic insert to fit over the reset teeth. The dental lab

then makes a plastic suck down retainer over the model with the plastic insert in place. When a patient wears the suck down retainer, the thermal plastic insert exerts a gentle pressure on the teeth to be moved. The thermal plastic insert is the key to this aligner. The insert is flexible enough to allow the patient to easily take the appliance on and off, yet rigid enough to move teeth.

What Can the Bioliner™ Be Used For?

The soft insert allows movement of the teeth up to about 1½ mm per tray depending upon the space. Up to three Bioliners™ can be made from the original models. If more movement is needed, the dentist can re-impress after the three Bioliners™ have been used and make a new set of aligners. Bioliners™ are used to

correct cases with rotated teeth, tipped teeth and minor relapse cases. They are not intended to be used to correct Class II, Class III, open bites, closed bites or excessive crowding.

I like to use Bioliners™ for:

- Minor crowding cases where the patient does not want fixed appliances and cannot afford Invisalign.
- I finished a fixed case, but patient does not wear (or loses) retainers and experiences some relapse.
- I finished a fixed case, but notice that one or more teeth still need some minor correction.
- Patient requests to take braces off early, but I am not 100% finished with case. I can use Bioliner as a finishing appliance.



Before treatment.

Other Uses

I had a patient with an open contact between two posterior crowned teeth that was bothering the patient. My options to close the space were to cut off and replace one of the crowns or try to close the space orthodontically. I closed the space in about a week with a Bioliners™ then made the patient a suck down, clear retainer. Five Star Lab also claims that dentist sometimes use a Bioliner to close posterior space that occurs from an orthodontic band being placed on a tooth. A Bioliners™ can be fabricated after the fixed braces are removed to close any posterior space left because of the molar bands. Lab cost – about \$66 for a Bioliners™.

Some Pros and Cons of Bioliners™ vs. Invisalign® (in my opinion)

Pros of Bioliners™:

- ① Bioliners™ cost a lot less than Invisalign. (Their main advantage.)
- ② Takes less suck down aligners than Invisalign. One Bioliner can move teeth further than one Invisalign aligner.

Cons of Bioliners™:

- ① Probably more limited use than Invisalign.
- ② For complicated cases, the dentist will need to take more impressions.
- ③ Due to thermal plastic insert, are thicker than Invisalign and therefore more noticeable.



After two Bioliners.



Stone Model



Re-set Teeth



Bioliner Retainer

Case Examples



Example 1:

Patient had tooth #24 extracted and lower fixed braces to close space about a year ago. Patient did not wear retainer and about 1mm of space opened between tooth #23 and 25. We used one Bioliners™ to close space in about two weeks.



Example 2:

Patient has some mild crowding of lower anteriors. The patient did not want fixed orthodontics. We stripped some space and aligned lower teeth with one Bioliners™ in about two weeks. We then made patient a clear suck down retainer.

A Clear Aligner System

If your practice needs a clear aligner system at a reasonable price, Bioliners could be the answer. The appliance has limitations, but can be a good tool for minor teeth alignment.

Contact information

If you would like more information about the Bioliners, please contact:
Five Star Orthodontic Laboratory
PO Box 888, Denton, Texas 76202
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Dr. Gerhardt practices general dentistry and orthodontics in Cedar Park, Texas. Graduating from the University of Texas at Austin in 1988 and the University of Texas Dental School at San Antonio in 1992, he also acquired two years of continuing education in orthodontics with the Academy of Gp Orthodontics in 1998 and gained Invisalign certification in 2002. Dr. Gerhardt has been an Orthodontic Instructor for the Academy of Gp Orthodontics, publishing numerous articles on the subject. He is a member of the ADA, TDA, Capital Area Dental Association and the Academy of Gp Orthodontics.

