

# TECHNICAL GUIDE

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## The Witzig-Stack Splint



### Overview:

The Witzig-Stack splint was developed to treat TMJ dysfunction. It is usually the first appliance used in a long-term treatment plan. The function of the appliance is twofold. Primarily it is used to stabilize the mandible to prevent any further damage to the temporomandibular joint including the condyle, disc, fossa and related tissues. It also repositions the condyle into an ideal 'Gelb 4/7' condylar position within the fossa, as prescribed by Dr. Gelb. After the patient's bite has been reestablished with splint therapy, usually in 9 to 12 months, the patient's posterior dental occlusion has to be reestablished either orthodontically or with a prosthetic appliance such as an Overlay Partial.

### Description:

The design of the Witzig-Stack Splint appliance is very streamlined and has minimal acrylic. It is usually made on the lower arch and the acrylic is like a small, removable retainer with a posterior bite plane. The appliance is reinforced with a braided lingual wire for strength and when dentition allows, three pair of ball clasps are incorporated for retention. Deep anatomy in the posterior acrylic directs the patient's mandible into a predetermined position (the 'Gelb 4/7'). Small lingual flanges of acrylic engage the upper teeth and prevent lateral excursions.



### **Clinical Procedures:**

1. Complete maxillary and mandibular alginate impressions. Obtain a wax bite at normal bite relation.
2. Pour models with lab stone.
3. Send the case to the lab with a completed *Orthodontic Technologies* laboratory prescription form. See Splint/TMD Appliance, Type Witzig. Notate on the lab slip whether you want us to generate a bite\* for the case or if you are providing a repositioned or TENS'ed bite for us to mount the case to. Please note, if we generate a bite for the case it will be mounted on the Witzig-Denar articulator. Unless otherwise specified, the bite will be generated to Dr. Witzig's average articulator settings which are, 3.0 mm posterior vertical dimension and with the mandible advanced 1.75 mm horizontally. The anterior pin will be opened to create a minimal clearance of about 1 mm between the incisors.

\*Request the Technical Guide on the Witzig-Denar Generated Bite for more information.

### **Delivery:**

The appliance should be delivered as soon as possible to prevent any further temporomandibular joint degeneration. The patient may or may not be able to bite fully into the appliance upon initial insertion. If muscle spasms are preventing the patient from biting fully into the appliance the patient should be directed to continue to wear the appliance and to gently and gradually bite into the anatomy until full occlusion is achieved. This will usually occur within 24 hours or less. The patient should be directed to wear the appliance at all times during the day, especially when eating. The Witzig-Stack Splint should be removed only for brushing and flossing.

**IMPORTANT: Do Not** adjust the posterior acrylic of the appliance to facilitate delivery of the appliance. It has been made to a bite that is extremely accurate and changing the posterior occlusal acrylic will impede treatment.

### **Concurrent Therapy:**

Typically the Witzig-Stack splint is used as the 'day-time' appliance and a special design of the Orthopedic Corrector appliance is made for wear at night. The night-time Orthopedic Corrector incorporates upper and lower Adams clasps so that once the patient bites into the appliance the mandible is held in place and cannot drop out of place during sleep. Normally the night-time appliance is made either at the same bite relation as the day time appliance or at a bite that is slightly more advanced and open.



For Additional Information Call  
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