Great Lakes Splint Appliance Selection Guide

This guide includes helpful tips on how to choose the right splint for your patient and information on standard function and specifications for Great Lakes appliances including:

- Anterior Deprogrammer
- Flat Plane Splint
- Full Contact Splint with Anterior Guidance

Several appliances as taught by clinical leaders including:

- Dr. Frank M. Spear
- Dr. Peter E. Dawson
- Dr. DeWitt C. Wilkerson
- Pankey Institute
- Dr. Jeffrey J. Brucia / FACE
- Dr. John C. Kois
- Dr. John C. Cranham

See inside...
Splint Appliance Selection

4 steps to choosing the right splint for your patients

I. Choosing an Appliance Type

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<td>• Protection against bruxing and clenching</td>
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<td>• Certain intracapsular disorders</td>
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<td>• Protection against bruxing and clenching</td>
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<td>• Certain intracapsular disorders</td>
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<td>• Long-term wear</td>
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Patient-Specific Considerations

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<tr>
<td>Sensitive Gag Reflex</td>
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</table>

Splint Selection & Ordering

Review the following pages to select the exact splint to fit your patient’s needs.

Contact Great Lakes Technical Support Specialist, Renée Zureck, if you need assistance or have any questions.

Direct: 716.319.1223  Toll Free: 1.800.828.7626, Ext. 223
E-mail: reneez@greatlakesortho.com
We will be happy to send you Rx forms and shipping supplies!

We have many tools available for you and your staff...
Ask us about instructions for taking accurate impressions, bite registration techniques, and guidelines for making efficient chair-side splint adjustments.

Lower or Upper Splint?
Although the majority of splints are fabricated on the upper arch, most can be fabricated on either the maxillary or mandibular arch.

For the most effective splint therapy, use the Angle classification system as a guideline when selecting an upper or lower splint:

Class I: Maxillary or Mandibular
Class II: Maxillary
Class III: Mandibular

Laboratory Lead Times
A due date should be provided on each prescription. This date should be one day prior to the actual appointment date. We appreciate advance notice for all RUSH cases. Lead times may vary based on fluctuations in volume. We will contact you if we are ever unable to meet your requested due date. Contact Laboratory Customer Service for all special arrangements.
Great Lakes Standard Splints & Deprogrammers

Full-coverage splints or mini deprogrammers remove occlusal interferences and promote normal muscle function. *Indicated for patients who can accept joint loading without pain.

**Full Contact Splint with Anterior Guidance**

A full-coverage splint with an anterior acrylic ramp that provides lateral and protrusive guidance against the opposing arch during function.

- Full occlusal coverage
- Lateral and protrusive incisal guidance
- Anterior acrylic ramp
  - Std angle 5° greater than required to disclude posterior teeth
  - Std protrusive and lateral length extends from contact point to just beyond the labial surface of the upper anteriors (approx. 4-6mm)
- Point contact from lower posterior buccal cusp tips

*Lower: Same as upper, point contact from upper lingual cusp tips*

A variety of articulators are used in-house at Great Lakes.

**SAM®**  **Panadent®**
**Denar®**  **Whip Mix®**
**Hanau™**  **KaVo**
**Artex®**  **Stratos®**

We have the most common models on hand so there's no need to ship your articulator. We recommend sending the bite registration with mounted cases.

If unmounted, all cases will be mounted on a SAM 2 articulator unless otherwise specified.
**Flat Occlusal Plane Splint**
(Also known as a hard nightguard)
A full-coverage splint with an even, flat occlusal surface providing contact for the opposing teeth.
- Full occlusal coverage
- No guidance
- No ramp
- Even, flat occlusal surface
- Point contact for each opposing tooth

*Lower: Same as upper*

**Mini Deprogrammer**
An anterior deprogrammer designed with a flat anterior bite plate to disclude posterior teeth, all interferences are removed.
- 5-5 occlusal coverage
- Open enough to eliminate interferences during function
- No guidance
- No ramp
- 4-point contact of opposing anteriors

Option: Minimal vertical opening so posterior teeth are just slightly out of contact. Ideal for patients with a deep bite.

*Lower: Same as upper*

A mini deprogrammer can be used as a nightguard, to relax muscles, to treat bruxism, to determine centric relation, and to take centric relation records.

**Fabrication Requirements:** Upper and lower stone models with a centric relation bite open a minimum of 1.5mm in the posterior. Facebow mounted models are always recommended to obtain the most accurate results.
Clinical Leader Splints & Deprogrammers

**Full Contact Splint with Anterior Guidance – Spear Style**
A full-coverage splint with an anterior acrylic ramp that provides lateral and protrusive guidance against the opposing arch during function.
- Full occlusal coverage
- Lateral and protrusive incisal guidance
- Anterior acrylic ramp
  - Std angle 5° greater than required to disclude posterior teeth
  - Std protrusive and lateral length extends from contact point to just beyond the labial surface of the upper anteriors (approx. 4-6mm)
- Point contact from lower posterior buccal cusp tips
Lower: Same as upper, point contact from upper lingual cusp tips

**Anterior Deprogrammer – Spear Style**
A standard anterior deprogrammer featuring 1 mm full occlusal coverage with maximum contact points.
- 3x3 anterior bite plate
- No guidance
- No ramp
- 6-point contact of opposing anteriors
- Open enough to eliminate interferences during function
Lower: Same as upper

**Full Contact Splint with Anterior Guidance – Dawson Style**
A full coverage splint with the addition of a small anterior lingual shelf designed to prevent the teeth from sliding out of position.
- Full occlusal coverage
- Lateral and protrusive incisal guidance
- Anterior acrylic ramp
  - Std angle 5° greater than required to disclude posterior teeth
  - Std protrusive and lateral length extends from contact point to just beyond the labial surface of the upper anteriors (approx. 4-6mm)
- Point contact from lower posterior buccal cusp tips
- 1 mm anterior lingual shelf
Lower: Same as upper, point contact from upper lingual cusp tips
"B" Splint – Dawson Academy, Wilkerson-Style
An anterior deprogrammer featuring full occlusal coverage with a small anterior discluding element.
- Full occlusal coverage – 1.5mm biocryl
- Open enough to eliminate interferences during function
- No guidance
- Point contact for opposing centrals
- Anterior bite plate
  - 2mm – anterior length from incisal edge
  - 5mm lingual from contact points
  - 1.5mm distal to centric relation contact

Opposing Arch "B" Splint Option
(For patients who require long-term wear)
- Full occlusal coverage – 1.5mm biocryl
- Smooth, level incisal contact from cuspid to cuspid
- Contacts opposing discluding element to accommodate excursive movements

Full Contact Splint with Anterior Guidance – Pankey Style (Lower)
A full coverage splint fabricated on the lower arch with a gentler ramp that provides protrusive movement and a flat anterior to achieve crossover excursive movement.
- Full occlusal coverage
- Lateral and protrusive incisal guidance
- Anterior acrylic ramp
  - Minimum angle (gentle) required to disclude posterior teeth
  - Std protrusive and lateral length (approx. 6-8mm)
  - Canines contact at rest and in lateral excursion
  - Centrals and laterals contact in protrusive movement only
- Point contact from upper posterior cusp tips
Upper: Standard upper CR with a small anterior lingual shelf and ramp extension for the cuspids going into protrusive movements. Point contact from lower lingual cusp tips

Full Contact Splint with Anterior Guidance – Brucia/FACE Style
A full coverage splint fabricated with Isofolan and ball clasps for a more comfortable anterior fit.
- Full occlusal coverage
- Lateral and protrusive incisal guidance
- Anterior acrylic ramp
  - Std angle 5° greater than required to disclude posterior teeth
  - Std protrusive and lateral length extends from contact point to just beyond the labial surface of the upper anteriors (approx. 4-6mm)
- Point contact from lower posterior buccal cusp tips
- Isofolan material (0.10mm thick relief spacer material)
- Ball clasping
Lower: Same as upper, point contact from upper lingual cusp tips
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• Patient compliance
• Retention
• Tooth sensitivity
work or veneers
• Crown and bridge
• Increased comfort
• A diff
• Increased comfort

Provides immediate disclusion of posterior teeth
• Long-term wear
• Certain intracapsular disorders
• Protection against bruxing and clenching
• Occlusal muscle disorder
• Long-term wear
• Certain intracapsular disorders
• Protection against bruxing and clenching
• Finding comfortable joint position
(ramp provides guidance)

Considerations Recommended Materials

4 steps to choosing the right splint for your patients

S

Subject path of insertion

Material Options

Choosing an Appliance Type

plint Appliance Selection

A heat-softening acrylic that softens under warm tap

Great Lakes standard for splint fabrication

Splint Biocryl

Variflex™

acrylic is bonded to the hard side of the material

A hard/soft combination dual layer material,

Hard/Soft Splint Biocryl

Flat Plane Splint (nightguard)

Anterior Deprogrammer

Full Contact Splint with Anterior Guidance

Finding comfortable joint position

• No ramp

the cuspids going into protrusive movements. Point contact from lower lingual cusp tips

Upper: Standard upper CR with a small anterior lingual shelf and ramp extension for

• Point contact from upper posterior cusp tips

• Centrals and laterals contact in protrusive movement only

• Std protrusive and lateral length (approx. 6-8mm)

• Minimum

• Anterior acrylic ramp

• Lateral and protrusive incisal guidance

• Full occlusal coverage

A full coverage splint fabricated with Isofolan and

Brucia/FACE Style

Full Contact Splint with Anterior Guidance –

• Minimum

• Anterior discluding element

• No guidance

• No ramp

• Open enough to eliminate interferences during function

• Full occlusal coverage – 1.5mm biocryl

An anterior deprogrammer designed to disclude posterior teeth.

Kois Deprogrammer

A retainer-type anterior deprogrammer designed to disclude posterior teeth.

• No occlusal coverage

• No guidance

• No ramp

• Point contact for opposing centrals

• Anterior discluding element

• 2mm – length

• 3mm – width

• Wrap-around labial bow from most distal tooth

on each side of arch

• Recommended for equilibration

Lower: Same as upper

Cranham Deprogrammer

An anterior deprogrammer designed to disclude posterior teeth.

• No occlusal coverage, full palatal coverage

• No guidance

• No ramp

• Point contact for opposing centrals

• Anterior discluding element

• 2mm – length

• 3mm – width

• No clasping

• Recommended for equilibration

Lower: Same as upper

Fabrication Requirements: Upper and lower stone models with a centric relation bite open a minimum of 1.5mm in the posterior. Facebow mounted models are always recommended to obtain the most accurate results.
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See inside...

- Upper and lower models are scanned
- For unmounted cases, a third scan is taken with the centric relation bite record to capture the proper relationship. Cases mounted on a Denar or SAM articulator are geometrically reproduced precisely in software.
- Software optimizes the position of the contact points on the opposing arch
- For splints with ramps, software is used to define canine guidance or group function
- 3-D splint with even centric contacts and anterior guidance
- Great Lakes digital splints have exceptionally smooth transitions between contact points that cannot be reproduced manually

The Latest Technology –
Digital Splint Fabrication™
from Great Lakes

Digital System Capabilities

- Full coverage single arch appliances
  - Flat Plane splint or hard nightguard
    - Even contact from all teeth on opposing arch
    - Smooth transitions from point to point
  - Full Contact Splint with Anterior Guidance
    - Flat plane splint with anterior ramp to guide disclusion
    - Ramp angle can vary - standard angle is 5° greater than required to disclude posterior teeth
- Cases mounted on Denar or SAM articulators
- Unmounted cases with CR bite registration
- Digital Mounting of Unmounted Cases
  - Rotation axis 100mm from lower centrals
  - Occlusal plane angle set 15° to horizontal

Capture of 3-D Image

Check out the details at Great Lakes Orthodontics.

200 Cooper Avenue    I    Tonawanda, New York 14150    I    1-800- 828-7626    I    www.greatlakesortho.com

We will help you step-by-step to:

- Select an appropriate splint
- Get the results you want from the lab
- Adjust and seat a splint

Contact Renée Zureck, Great Lakes Splint Specialist
716-871-1161, ext. 223.
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See inside...

Your expertise, our technology & skill – A successful partnership

Superior Quality Splint

Less Chair-time

Increased Practice Profitability

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- Get the results you want from the lab
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