MERiT™ Static-Progressive System

081591718

- Deliver optimum stress to shortened tissue at end range to quickly achieve desired therapeutic goals
- Use instead of rubber bands and springs to progressively increase PROM
- Infinitely control the amount of force degree by degree and gram by gram
- Generate physician interest to increase your referrals
- Gain you patients' respect and gratitude by giving them the results they want.

What is static-progressive splinting?

Static progressive splinting describes a time-honored concept of applying low load, prolonged stress to soft tissue through consecutive, advancing adjustments. For resolving passive range of motion limitations, static- progressive splinting is more effective and better tolerated than dynamic splinting.

What is the rationale?

Dr. Paul Brand has taught us that slow, prolonged tension will alter cell proliferation and positively influence tissue growth. This tension needs to be delivered with the joint held at the end of available passive range, with controlled stress for long periods of time. Physical therapist Ken Flowers refers to this as maximizing TERT (Total end Range Time). Flowers states that the ability to resolve PROM limitations is dependent upon total stress delivery. Total stress delivery = intensity + duration + frequency.

How do I use the MERiT™ system?

MERiT™ Static-Progressive Components are used in place of dynamic components (rubber bands and springs) to direct controlled tension to a stiff joint. They are well-tolerated by patients for all direction of motion—flexion, extension, rotation, deviation, etc. The units can act on the elbow, forearm, wrist, fingers, or thumb. MERiT™ Static-Progressive Components allow the therapist to set the line of pull and to provide various amounts of tension for both day and night wear. Tension is adjusted by tuning the thumb screw.

Directions

1. Attach the MERiT™ component to the splint base. (refer to figure below):
    - Remove non-stick coating (scratch surface or use splint solvent) from the site on the splint base where you will attach MERiT™ component.
    - Remove non-stick coating from one side of a 2 cm x 2 cm piece of thermoplastic.
    - Heat this thermoplastic piece over the **HEAT GUN** (NOT in water).
    - With the coated side of the thermoplastic away from the stem, wrap the thermoplastic piece around the stem of the component to form a cylinder (figure 1&2).
    - Mold the thermoplastic closely to the stem of the MERiT™ component.
    - Re-heat the thermoplastic wrapped on the component over the **HEAT GUN** (figure 2).
    - Place the MERiT™ component directly down on the splint base.
    - Press the softened thermoplastic at the base of the MERiT™ stern onto the split base to form a seal between the components (figure 3).
    - Attach the MERiT™ component so that the axis of the rotating cylinder of the component is **perpendicular** to the splint line attaching to it; if you fail to do this, the line will fail to wind properly (figure 4&5).

2. Thread the splint line through the MERiT™ component. Run the splint line through the hole in the rotating cylinder of the MERiT™ component and tie the line back onto itself (figure 4). Leave adequate length of the splint line so that splint is easy to get into but no so long that it takes too much time to attain tension in the line.

3. Set the Splint Tension. Once the splint is on the patient, simply turn the MERiT™ component to adjust tension in the splint and gradually increase PROM.

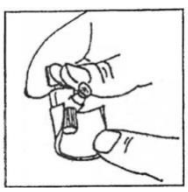

Figure 1

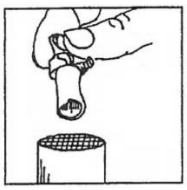

Figure 2

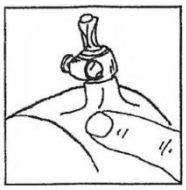

Figure 3

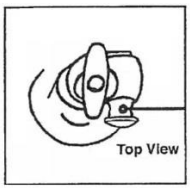

Figure 4

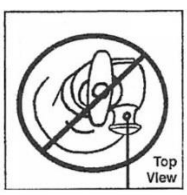

Figure 5

Splint Regiment

Splint tolerance must be established gradually. Instruct the patient in an initial wear schedule to determine skin tolerance. The more the patient wears the splint, the faster gains will be made. The therapist must determine the specific splint regiment and balance between splint wear and active motion.