Pg. 406-407 #3, 11, 13, 14, 15, 19, 20

**#3) Describe the relationship of shoulder, elbow, and wrist function to hand**

* Shoulders are important for reaching and for overall hand to body activities. The elbow allows for pronation and supination of the forearm to help with movement from hand to face activities. The wrist is used to stabilize the hand during an activity that requires grip strength and other functional tasks with hand.

**#11) Name the three major classifications of splints. Give one example of each.**

* Static: Rolyan static radial nerve splint and resting hand splint.
* Dynamic: Pronation/supination splint
* Static progressive: Rolyan proximal interphalangeal joint extension splint for static progressive splinting

**#13) What is the optimal position for splinting the wrist for function?**

* The wrist in 20 to 30 degrees of extension, thumb abducted and opposed to the pad of the middle finger, metacarpals are flexed to approx. 45 degrees. Within this position tension is equal in all muscles and allows for functionality.

**#14) What is the optimal position for splinting the wrist for carpal tunnel syndrome?**

* The optimal position for splinting the wrist for carpal tunnel syndrome is 7 to 9 degrees of extension. Using a drapery splinting material with moderate resistance to stretch is recommended.

**#15) What effect does wrist flexion have on hand function?**

* Wrist flexion has a pretty significant effect on hand function because it makes it harder to be functional. Active wrist flexion results in passive finger extension. The opposite happens for active wrist extension where it results in passive finger flexion.

**#19) What are the two main characteristics that influence selection of thermoplastic material? Give several examples of each.**

* The two main characteristics that influence selection of thermoplastic material are how it handles during the forming (fabrication) process and how it performs as a finished product. Usually rigid and made with low temperature and examples include flexibility, durability, and thickness.

**#20) List six general guidelines for achieving optimal fit and function of the splint**

* Splint should be 2/3’s the length of the forearm
* Splint should cover approx. half the circumference of extremity (midbone trim marks work well)
* Splint up to but do not include the next skin crease in the wrist/hand area, in order to leave room for skin folds during ROM
* Fold or flare proximal and distal edges so that they are rounded
* Round all internal and external corners. Sharp corners wear poorly and will dig into patient’s skin
* Reduce unequal pressure by means of a more conforming fit