

# SWIMMING

- art of self-support or self-movement by means of hands and feet in or on the water
- a valuable tool in physical therapy as it fully uses many muscles of the body

## 1. TECHNIQUES

- psychological barrier must be reduced (the earlier the better)
- crawl – freestyle, developed in 1870s; alternating arm backstroke, first used 1912; breaststroke – known since the 17<sup>th</sup> century; butterfly – 1930s; sidestroke – now used only in noncompetitive swimming

### CRAWL

- one of the arms moves through the air, palm downward, as the other arm pulls back under the water
- legs move in the flutter kick – up and down movement of the hips
- 2-8 kick strokes per single arm movement
- one full breath in each arm cycle, inhale by turning the head to the side, exhaling underwater

### BACKSTROKE

- the crawl stroke but with the back turned to the water
- arm is lifted and brought up behind the head while the other arm pulls the body through the water
- the legs flutter kick

### BREASTSTROKE

- the swimmer lies front down, arms pointed straight ahead with palms down
- the arms are swept backward, the legs are drawn up close to the body
- the legs thrust outward as the arms are brought back to the starting point
- the swimmer exhales underwater

### BUTTERFLY

- both arms are brought forward together over the water and brought backward simultaneously
- the legs kick a whiplike downward motion

### SIDESTROKE

- helpful as a lifesaving technique or for long-distance swimming
- head remains constantly above the water
- the swimmer lies on either side of the body

## 2. COMPETITIONS

- *meets* – competition between two teams or amongst several teams
- *relay races* – teams consist of four swimmers who race in turn
- *medley* – all four types of competition strokes must be used, each competitor must swim equal distance in each stroke