ICE and its uses:

Ice can be used to control acute inflammation (swelling) and therefore speed up recovery from an injury. A recent study states that using ice within 2 days on an acute injury can shorten the recovery time. Decreasing the tissue temperature slows down the rate of the chemical reactions that occur during the acute inflammatory response. In addition, decreasing the tissue temperature can reduce the heat, redness, swelling and pain associated with the injury. The ice causes a vasoconstriction and an increase in tissue viscosity which leads to a decrease in bleeding and fluid loss into the soft tissue after an acute injury. Ice should be applied during the acute inflammatory stage and thereafter as a means to reduce the severity of delayed onset muscle soreness. So when a swimmer resumes swimming after an injury Ice should be applied to the previously injured area in order to prevent post-activity soreness. Heat should not be used after activity to reduce muscle soreness but instead can be used prior to an activity to warm the muscle up prior to being worked.

How to make a cold pack:

For a soft gel pack add four cups water and one cup rubbing alcohol to a freezer bag. For a firmer bag add three cups of water to one cup of rubbing alcohol.

Application of a cold pack:

1. Damped a pillow case with warm water
2. Wrap the prepared cold pack in the dampened pillow case
3. Elevate the injured or sore body part if able
4. Place the wrapped cold pack on the injured or sore body part for 10 min on 10 min off repeat 2 times and then leave off for 1 hour and repeat hourly.

How to make an ICE bag

Take ice (crushed if possible) and place in a ziplock freezer bag.

Application of an Ice bag:

1. Get a DRY toel or a pillow case
2. Place the bag of ice inside the DRY pillow case or towel and apply to the injured or sore body part
3. Elevate the body part if able
4. Place the wrapped ice bag on the injured or sore body part for 15 minutes on and then off for 45 minutes and repeat hourly.

How to make an Ice massage cup:

1. Fill several Styrofoam cups ¾ full with water
2. Place the cups in the freezer overnight
3. Remove the cups when frozen and peel back the upper part of the cup exposing the ice

Application of the Ice Massage:

1. Place towels around the part you are going to ice
2. Run the ice over the injured or sore body part in a circular fashion
3. Continue to rub the ice over the area for 5-10 minutes and repeat hourly.

Important tips:

1. Ice should be applied as soon as possible after an injury or with reported soreness after exercise.
2. Ice should be applied regularly for the first 48-72 hours post injury and then during the recovery period to offset post exercise soreness.
3. Ice SHOULD NOT BE left on more than the prescribed times above to avoid cold-induced vasodilation which will in fact reverse the beneficial effects of the ice and cause increased edema (swelling)
4. Heat should not be used on acute injuries or to help with post exercise soreness.
5. Heat is effective to warm a muscle up prior to activity.

Sources:

Cameron Michelle H. Physical Agents in Rehabilitation from Research to Practice. 3rd edition. Saunders, Elseiver Inc publishers, 2009.