Baseball Miracles
SPORTS HEALTH
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Proper Warm-Up

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Every person who participated in sports as a youth remembers the time when the team would circle around the captain for warm-ups and engage in a rigorous static stretching routine of all the major muscle groups. Cold muscles: hamstrings, quadriceps, gluteus, and calf muscles would be stretched - sometimes to the point of feeling pain.

Those days are over. Current thinking has evolved to the idea that stretching a cold muscle leads to decreased performance and increased injury.

Why is this?
Increased Muscle and Body Temperature - the temperature increases within muscles that are used during a warm-up routine. A warmed muscle both contracts more forcefully and relaxes more quickly. In this way both speed and strength can be enhanced. Also, the probability of overstretching a warm muscle and causing injury is far less.

Blood Vessels Dilate - This reduces the resistance to blood flow and lower stress on the heart.

Improve Efficient Cooling - By activating the heat-dissipation mechanisms in the body an athlete can cool efficiently and help prevent overheating early in the event or race.

Improved Range of Motion - The range of motion around a joint is increased.

Hormonal Changes - Your body increases its production of various hormones responsible for regulating energy production. During warm-up this balance of hormones makes more carbohydrates and fatty acids available for energy production.

Mental Preparation - The warm-up is also a good time to mentally prepare for an event by clearing the mind, increasing focus, reviewing skills and strategy. Positive imagery can also relax the athlete and build concentration and confidence.

What to do:
A well-designed warm-up will gradually increase the intensity of your sport specific movements. This uses the specific skills of a sport and is sometimes called a dynamic warm-up. For runners,

the idea is to jog a while and add a few sprints into the routine to engage all the muscle fibers. Add movements not related to your sport: calisthenics or flexibility exercises for example.

If you must stretch, the best time to do it is after a muscle is warm and has increased blood flow and temperature. Remember: stretch after exercise because muscles are warm and pliable. Increase intensity gradually, and utilize the muscles that will be stressed during exercise.

Conclusion

All athletes should perform a regular warm-up and cool down during training and competitive events . A proper warm-up increases blood flow to the muscles which results in decreased muscle stiffness, less risk of injury and improved performance. Keep in mind that the perfect warm-up is a very individual process that can only come with practice, experimentation and experience. Try warming up in various ways, at various intensities until you find what works best for you. Over stretching can be harmful and a well-designed strengthening program combined with an appropriate warm-up is the way to go. Additional benefits of warming up include physiological and psychological preparation and increased performance.