

How does your body get in shape?

When you work hard in practice, you put stress on your body (don't worry, this is good stress). You actually cause microscopic tears in your muscle fibers when you train with intensity or when sweat it out during dry-land training. Your body adapts to this stress by repairing the muscles and building them a little bit stronger and a little better conditioned than they were before your workout.

When you train, you also produce lactic acid in your muscles. Lactic acid is a byproduct of exercise (kind of like the exhaust from your mom or dad's car). During training your muscles learn how to tolerate high levels of lactic acid. Your blood stream is responsible for carrying the lactic acid away from your muscles and recycling it in other parts of the body. During training your blood learns how to become more efficient at recycling the lactic acid.

This constant tearing down and rebuilding is called "adaptation." One of the ways your body adapts to consistent training is to over-produce enzymes. Enzymes are protein molecules that help your body speed up the adaptation process. For example: when you are swimming a long intense set enzymes kick in to help you increase your breathing rate and also work to help more blood flow to your muscles.

The reason your coach has you train 5 or 6 days a week is to keep your body from totally recovering from each practice. Remember, during the season your body is over-producing enzymes and it becomes more efficient at this if you train consistently and often. One of the keys to conditioning is to consistently use up the enzymes that your body is over-producing so that it will continue to produce more.

Ever wonder why your coach gets mad when you skip practices and take off for vacations during the season?

When you skip practices or take off for a vacation in the middle of the season you allow your body to totally recover from the training and it stops adapting. Once you start back at practice it takes your body awhile to start the adaptation phase all over again, so you actually take a few steps backward in your conditioning.