

De-training and Adaptation

Hans' Blog - "Why your Coach hates it when you miss workout"

"Hi Coach, I gotta miss workout this Friday, oh yes and Saturday too." Coach frowns, he/she does not look too happy, because every coach wants you to come to every workout. Some swimmers have better than 95% attendance and will occasionally have to or want to miss a workout. Then, there are other swimmers who have sketchy attendance to begin with and then suddenly come to you with a legitimate reason for missing a workout. Both are not a problem, but why you miss and when you miss is as important as ever.

Life events, **DO NOT Miss them**, please. Everyone has them, you cannot miss them, but you can miss a swimming workout or two or even three. What is an important life event is an individual decision and you will know what it is. If it is important to you, then it is OK with me.

Illness, we used to go to workouts sick all the time and just try and tough it out. In this pandemic, we have learned that perhaps that is not such a good idea. Your body does not adapt well when sick and may even be more harmful to come than to stay home.

The rule of thumb used to be that you could train if the symptoms were above the neck, head cold? There has been much research done that intensive training compromises the immune system, that means we, when we train as intensively as we do, while reaping the benefits of superior fitness are always on the brink of getting sick.

Exercise in general can help boost your body's natural defenses against illness and infection, Schachter says. "Thirty minutes of regular exercise three to four times a week has been shown to raise immunity by raising levels of T cells, which are one of the body's first defenses against infection. However, intense 90-minute training sessions like those done by elite athletes can actually lower immunity."

So, if you are sick, it is best to stay away and wait until you get better. So, Let us take a look at why your coach is not so happy, when you miss a workout!

Training Response - Imagine that we are quite comfortable in the late summer, the weather gets a bit cooler and in order to remain comfortable, we decide to put on a sweater or a light jacket. It gets colder in late November and we put on a coat. In December, It starts to get downright nasty and we put on extra layers, gloves, hats, boots and the whole nine yards. Every time the weather changes, our response changes to meet the demands and above all, stay warm.

Our body and muscles react much the same way to the stimulus of exercise. As the stimulus gets harder, the body adapts and gets stronger, more endurance, more speed etc. Every time you work harder than you did before, the muscles *put on a coat*, so to speak, they adapt to



whatever work you do and as a result get stronger. The result is not immediate though, adaptation does take time. The benefits of the workout you did this morning may not become apparent for several days or even weeks after.

De-training happens fast though. Generally speaking there is a three day rule. If you neglect to train for three consecutive days, your body will start to de-train and lose that strength or fitness that you had gained previously. You will actually start to regress. In most cases you will need the same amount of time to recover your fitness as the time you were off. Let's say that you take two weeks off starting today. You return to training and then two weeks later, you should be at the same point as you are today.

To put in other terms, Imagine that your body is a bank account and training is like a deposit into that account, if you wait awhile you will accrue interest (adaptation). However, most bank accounts do not lose money, if you fail to make regular deposits. (I don't want to give the banks any ideas so keep this to yourself.)

So, should the rule be, not to take any time off at all? No, your body and mind does need the opportunity to stop training or at least change the training from time to time. We need that regeneration period and when you return to the water fresh and rested, you will also adapt faster subsequently.

Coaches have often noticed the phenomenon of early season meets and the great improvement a swimmers makes, part of that is illusory, but swimmers will adapt quite well after the break to the new training loads. The result is, fast early season swimming.

Christmas Training Camps can be a convenient time to train, because you are off from school but are not always a good idea. It is probably more important for those athletes to spend time with their family and re-charge for the next block of training. Remember, you have just trained for 14 weeks straight. It is a good for Varsity athletes, however, as their most important meets are the 2nd and 4th week in February, (different in the USA)

Fast Gainers vs Slow Gainers - Some athletes adapt faster than others, so even if they are doing exactly the same training, the results might not be the same.

Time Off Granted we have had a lot of time off this last year and every athlete in the club has noticed that they do lose fitness if they are off. The biggest tell is it takes much more effort to do the same amount of work! The important part is that we gain it back. The important part is that we do not lose skill. Our strokes and skills will remain the same. Strength does not diminish as fast as other components of fitness, that is likely due to the fact that we never completely de-train strength wise as we are always doing something that involves strength. Even when we sit down and later we have to get up, we have at least done one squat.

In conclusion, attendance is Important, you cannot improve without practice, no matter what level you are at.

Sincerely
Coach Hans



MAR 2021