Chapter 1: What is HIIT?



S1: In this video, we'll talk about what HIIT is.

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S2: Anyone who works out, or at least talks to others who work out, should know about HIIT. For those of you who actually are involved in HIIT, you know what it's all about but for the others, your familiarity with HIIT may only be associated with panting, sweating along with burpees- in fact, a whole lot of burpees.

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S3: You may also have heard that HIIT has to do with intense moves, short breaks and breaking an immense amount of sweat. But the truth of the matter is that HIIT is so much more than that.

Yes, there is the element of high intensity as well as of interval training but having said that, many people may do both without actually ever doing a real HIIT workout. So to clear out the confusion, here is what HIIT truly looks like.

- High intensity interval training or HIIT is a very specific type of training technique where you give everything you have during short but fierce spurts of exercise
- The bursts are alternated with short and occasionally active periods of recovery as opposed to standing still
- This kind of intense training raises and keeps the heart rate up while burning more fat deposits in less time

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You can also get the same effect when you go for a long run where you also kick up your heart rate and keep it up. However, the two are very different, as the results produced vary significantly.

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This is also why each burst is short, ranging anywhere between 20-90 seconds because even this much time is a lot when you kick the intensity level up to the max

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- When compared to other types of cardio, HIIT has also been seen to be a more effective means of getting successfully shredded
- It is a workout that is beneficial on multiple fronts since it uses both body weight and added weight that not only spike up the heart rate but also tone muscles

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- The other thing that makes HIIT work is the element of rest
- Resting between each set is an essential part of the workout because if you do not take time to recover, you will not be able to manage the next burst properly

S11: The other thing that makes HIIT work is the element of rest. Since the whole routine is comprised of intense bursts of activity followed by active recovery this is where the element of rest comes in. Resting between each set is an essential part of the workout because if you do not take time to recover, you will not be able to manage the next burst properly.

- Since you are performing at an intense level, you are forcing your body to do something it is neither used to nor comfortable with
- So when the rest component comes on, you need to give it the time to prep itself to perform at its max during the next high intensity spurt

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The Science Behind HIIT

- · HIIT aims to induce overload
- By going through strenuous exercise, training fatigues the body significantly in the hope for supercompensation
- However, this supercompensation can only occur when the training overload is supported by significant recovery

The science behind HIIT

S14: As mentioned earlier, HIIT aims to induce overload. That is to say, by going through strenuous exercise, training fatigues the body significantly in the hope for supercompensation. However, this supercompensation can only occur when the training overload is supported by significant recovery.

- Together, the two components aim to bring about physiological adaptations that lead to increased performance above the baseline
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Think of it like a car engine after a long car trip. Once you have reached you destination, your car engine continues to stay warm until it slowly cools to a resting temperature. The same mechanism occurs happens in the body after a HIIT workout.

Just as a car engine stays warm once it has been turned off, your body's metabolism continues to burn calories even after the workout is over. This physiological effect is known as excess post exercise oxygen consumption or EPOC.

The EPOC effect

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- During recovery, energy resources need to be replenished, blood needs to be re-oxygenated while circulatory hormones need to be restored
- Plus, body temperature needs to return to normal along with the breathing and heart rates
- All these actions need oxygen and so EPOC experiences an increase in calories post exercise as compared to pre exercise

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- Now, while EPOC is applicable to most types of intense workouts, research indicates that HIIT is the most effective means to trigger the EPOC effect
- This is because when you work at a higher intensity and need energy immediately, anaerobic pathways provide the needed ATP at a much faster rate

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- This is also the reason why high intensity activity can only be maintained for a brief period of time
- So HIIT is effective because high intensity bouts create anaerobically produced ATP and once that is exhausted, it needs to replenish aerobically

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- This also ties in with the fact that EPOC is more affected by the intensity of the workout and not so much its duration
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S21: The higher the EPOC effect, the more calories you burn at rest and the higher your Resting Metabolic Rate or RER. This spike and recovery pattern is key to making HIIT work so well. Not only does this pattern improve cardiorespiratory endurance but also allows for greater caloric expenditure during and after the workout when compared to moderate aerobic workouts.

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S22: Having said that, it is still very important to remember that at least 48 hours of recovery time should be allowed between high intensity exercise sessions which should not be done more than three times a week.

Is HIIT Right For You?

- Since HIIT is all about intensity, you need to be in fairly good health with an elementary level of general and core strength along with mobility
- · You also need to be aware of your personal physical limitations

Is HIIT right for you?

S23: Since HIIT is all about intensity, you need to be in fairly good health with an elementary level of general and core strength along with mobility. You also need to be aware of your personal physical limitations.

People who want to take on HIIT should be interested in trying out a number of different exercises and be knowledgeable about performing these moves not only correctly but safely as well

S24: People who want to take on HIIT should be interested in trying out a number of different exercises and be knowledgeable about performing these moves not only correctly but safely as well. If you are above the age of 55, then it is recommended that you take on HIIT with a doctor's approval.

- HIIT is not recommended for anyone with any orthopedic limitations such as knee, back, or shoulder conditions
- Likewise anyone suffering from cardiovascular issues like hypertension and heart palpitations should not take on such an aggressive form of exercise

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