

## LECTURE 7

# Principles of Fitness

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# Training Systems

When you're creating your programmes for your course assessment you will need to use a range of different training systems to suit and support your client's goals. There are a number of different training systems that you can utilise and in this lecture we will cover them.

## Super-sets

Essentially a super-set is when you combine two exercises back-to-back with little to no rest in between. This system can be used for a myriad of goals, from endurance with high reps and low rest, through to strength with lower reps and more rest.

- Remember that you can also structure supersets with both exercises utilising different rep ranges, for example, a heavy 5-rep bench press followed by a 10-rep press-up can be very beneficial.
- It can be done to put extra stress onto a single muscle group, for example super-setting a chest press with a chest fly.
- Or to target antagonistic muscles, for example pairing a chest press with a rowing exercise.

Supersets allow you to get through more work in a shorter period of time.

## Tri-sets

A tri-set ,as the name implies, is three exercises grouped together with little to no rest in between.

It is generally more utilised in endurance-type training but can also be used as a time-saver if you have a client with minimal training time, or they are late to a session. For example, you might tri-set a bicep curl with a tricep pushdown and a lateral raise.

## Giant Set

A giant set is a kind of mini-circuit consisting of four or more moves performed one after another with little or no rest in between. It's typically used for endurance-based workouts and is based on the elongated period of time the body will work for when performing exercises back-to-back.

## Matrix 21s

Matrix 21s are a great choice for building "time-under-tension" (TUT) for hypertrophy workouts. Matrix 21s may also go by the name of just '21s' or even '7s', based on the fact that you perform 7 reps in each range of motion.

For example, you would perform 21 reps of a bicep curl, 7 of which would be the top half of the exercise, 7 would be the bottom half of the exercise and the final 7 would be the full range of motion.

## Drop-sets

This is used where you complete a set using heavy weights until you can do no more. (until failure). Then you reduce the weight by between 10% and 30% and repeat the set – with no rest in between.

It is used to elongate the final set of exercise and add increased local muscular fatigue and is a good way to increase intensity for a client during a session.

Take a bench press as an example,. You would start with a working weight for 8 reps and after that, lower the weight and perform another 6-8 reps with no rest.

## Pyramid-sets

This is more or less the opposite to drop-sets where you start with light weights and then with each set, increase the weight.

This training system can be used to span a wide range of rep ranges.

- You can structure it for a specific goal such as endurance by starting at 20 reps, followed by 15 and then 12, featuring progressively heavier weights.
- You could also perform 5 reps, followed by 4 and then 3 to focus on strength training.
- You might also work on 15 reps, followed by 10 and then 5 which will span endurance, hypertrophy and strength rep ranges.

The key to remember is that pyramid training features a range of reps, a range of resistance and rest between each set.

## German Volume Training

Also known as the “10 sets method”, in this system, you do 10 sets of 10 reps of one exercise.

You would pick one exercise (typically a compound exercise like a squat, deadlift or bench press) and perform 10 sets of 10 reps, with a strictly enforced rest time.

The high-volume nature of German volume training makes it perfect for hypertrophy training - building muscle fast. Strict rest periods make it a progressively more difficult process through each set.

## Negatives

In negatives you focus on the lowering phase of a movement (aka the ‘eccentric’ phase). So for example, in a bench press, lying on your back, you might be helped to lift the weight (the concentric phase of the movement) but then you lower the weight without help as slowly as you can.

Negative training is utilised to increase the time under tension (TUT) of a set, or to offer overload in strength training.

- The eccentric phase of an exercise can typically be overloaded more than the concentric phase meaning you can subject the body to heavy loads, and increased TUT.
- You will make a concerted effort to lower the weight significantly slower than you would normally.
- In some cases, you may even ignore the eccentric part of the exercise all together and just perform the negative, for example using a box to step up to the top of a pull-up position and then slowly lower yourself through the negative portion of the rep.

## Forced Reps

This weight-training system is where the PT will help the client to carry on training past their level of fatigue - to take them beyond their normal point of failure.

- You may need to help them more and more as the reps go on past their point of concentric fatigue.
- As your client begins to reach failure, you can use assistance as a spotter to enable them to perform a few more reps than they otherwise would normally.

