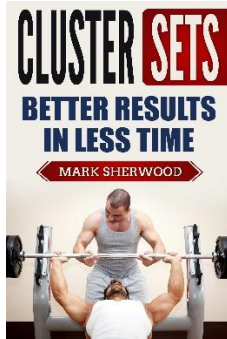


Cluster Sets

Better Results In Less Time



By Mark Sherwood

For more information from the author visit:

<http://www.precisionpointtraining.com/>

Copyright © 2018 by Mark Sherwood

Cluster Sets: Better Results In Less Time

By Mark Sherwood

The author and publisher of the information in this book are not responsible in any manner for physical harm or damages that may occur in response to following the instructions presented in this material. As with any exercise program, a doctor's approval should be obtained before engaging in exercise.

Table of Contents

Introduction

Chapter 1: Choosing the right Exercises For Cluster Set Training

Chapter 2: Heavy Clusters

Chapter 3: High Intensity vs. Controlled Intensity

Chapter 4: Pyramiding Your Clusters Sets

Chapter 5: Clusters of 6 x 6 and 8 x 8

Chapter 6: 8 x 8 and 6 x 6 Intensity Variations

Chapter 7: Adding Weight to Short and Medium Clusters

Chapter 8: 41's

Chapter 9: Explosive Force And Speed Development

Chapter 10: Progression

Chapter 11: Use Cluster Sets To Your Advantage

About The Author

Additional Resources

Introduction

Cluster set training is a strategy that allows you to stimulate your muscles with a high amount of work in a short amount of time. A cluster set is actually a series of mini sets that are done in rapid succession that combine to form a single set. The exact manner in which you structure your cluster sets can be done in a variety of ways according to your goals and preferences for training, but an example will help you to understand the basic concept behind cluster set training.

We will imagine that you have the ability to do one set of ten reps with 180 pounds for the bench press, however, instead of doing ten consecutive reps, you are going to do a four mini sets consisting of only three reps each with just fifteen seconds of rest between each mini set. Once you have completed four mini sets of three reps each in rapid succession, you have performed a cluster set. The notation for this type of cluster would be written as, *A Cluster of 4 x 3*. In this example, some people may find that they can do a cluster of five sets of three reps which would be written as 5 x 3.

What you should notice when doing a cluster set is that the brief rest between each mini set will delay the buildup of fatigue. This will allow you to do more total reps than when doing a regular set of nonstop reps. If we go back to the previous example of cluster sets consisting of 4 x 3 or 5 x 3 with a weight that you can normally do for ten reps, it's easy to see that 4 x 3 equals twelve total reps and 5 x 3 equals 15 total reps. In both cases, you will be able to do more than ten reps that you could normally do for a single set. Not only that, but the force and power that you exert into each rep will be amplified beyond that of a normal set because you will be able to recover some degree of strength and power between each mini set.

The example given is just one way that cluster sets can be done, but you can alter the way that you do cluster sets to fit your goals. For example, you can use cluster sets in conjunction with heavy weights to emphasize the development of strength. You can also use cluster sets in conjunction with medium or light weights as a means to increase training volume for the development of muscle mass. Not only that, but cluster sets can easily be modified to emphasize rep speed and the development of explosive power. All of these options will be discussed as you continue to read, *Cluster Sets: Better Results In Less Time*.

Chapter 1

Choosing the right Exercises For Cluster Set Training

Cluster set training can be done with any exercise. However, cluster sets require you to frequently and rapidly un-rack and re-rack your weights. Some exercises are somewhat complicated and awkward in terms of frequently and rapidly un-racking and re-racking the weights.

Squats May Be Awkward Unless You Have a Smith Machine

Barbell squats is an example of an exercise that may feel awkward when doing cluster sets. The reason for this is because there are several steps involved in every set of squats as you must un-rack the weight, walk out backwards, do the squats, and take a couple of steps forward to re-rack the weight. You can still use squats for cluster sets, but it will require a lot of work to set up for each mini set. If you have access to a Smith Machine, you will find it much easier to do cluster sets when squatting.

Using a Bench for Dumbbell Exercises May Be Difficult

Other exercises that may make it difficult to do cluster sets are dumbbell exercises that are done when lying or sitting on a bench or incline bench. An example of this would be dumbbell bench presses on a flat bench. You would probably find it very awkward to do a few reps and set the dumbbells down and pick them back up to reposition yourself for the exercise every fifteen seconds; it would be a very cumbersome process. The same is true of incline dumbbell presses, however, if your dumbbells are not too heavy, you may be able to lower them and rest them on your thighs between mini sets. You would then need to use your thighs to thrust the dumbbells back into the starting position to repeat another mini set. You may also find seated dumbbell curls to be awkward unless you are comfortable resting the dumbbells on your thighs between mini sets.

Exercises That Go Well with Cluster Set Training

Machines: Excellent

The use of weight training machines will generally make it very easy to do cluster sets. Machines are an excellent choice for cluster set workouts.

Body Weight Exercises: Excellent

Body weight exercises such as **pushups, pull ups, dips, and bodyweight squats** are also easy to use in conjunction with cluster sets.

Cluster Sets are Compatible with Many Free Weight Exercises

Most free weight exercises can also be done fairly easily in conjunction with cluster set training. This includes exercises such as:

Bench presses, incline presses, overhead presses, deadlifts, bent-over barbell rows, upright rows, and barbell curls.

Once you begin to implement cluster sets into your workouts, you will quickly discover which exercises that you prefer the most for cluster set training.

Switching Exercises From Cluster to Cluster

When performing a cluster set, you generally do the same exercise from one mini set to the next until the cluster set is completed. However, if you are going to do more than one cluster set for a muscle group, it is up to you whether or not you switch exercises from one cluster to the next. For example, if you are training your chest muscles, you may choose to do your first cluster with bench presses; your second cluster with incline presses; and a third cluster with dips. On the other hand, you may want to do bench presses for all three clusters.

Chapter 2

Heavy Clusters

Choose a Weight that Allows 5 Perfect Reps

Clusters are often done in conjunction with heavy weights in order to build strength. When choosing how much weight to use, you can use the same amount of weight that you would use if you were performing a set of five perfect reps which would be equivalent to about 80% of your single rep max for most people. Perfect reps are reps that are done with excellent technique and each rep looks the same in terms of force and rep speed.

Do 4 Mini Sets consisting of 2 Reps Each (i.e. 4 x 2)

Instead of doing a set of five reps, you can easily alter the way you structure your reps by doing them in a cluster consisting of two reps per mini set. You should rest only fifteen to twenty seconds after each mini set of two reps. Your goal is to do a cluster of four mini sets for two reps each. This would be called *a cluster of 4 x 2*. Each cluster that is done in this manner would equal eight reps. Two clusters of 4 x 2 would give you a total of sixteen reps, and three clusters of 4 x 2 would give you a total of 24 reps with a substantial amount of weight.

Rest a Muscle Group for at Least 3 Minutes after a Cluster

Once you complete a cluster set with a given exercise, rest the muscle group that you have been working for three to five minutes before doing another cluster for the same muscle group.

Alternate Between muscle Groups for Faster Workouts

If your purpose is only to gain strength and nothing else, then you will probably want to take a complete rest between clusters. However, if you want to speed up your workout and your metabolism, and you want to get more of a cardiovascular effect, then it would be better to avoid sitting around while a muscle group is recovering by alternating between muscle groups. For example, you can do a cluster of 4 x 2 with bench presses for your chest muscles. Follow the cluster of bench presses with a cluster of 4 x 2 for your back muscles by doing lat pulldowns or pulley rows. You would then continue to keep alternating back and forth between chest and back from one cluster set to the next.

Two to Three Clusters per Muscle Group

When doing clusters with heavy weights, I generally recommend two to three cluster sets for each muscle group; especially if your goal is simply to gain strength.

4 x 1 for Even Heavier Clusters

Some of you may want to go even heavier on your clusters by using a weight that would normally permit two to three consecutive reps (e.g. 90% to 95% of your single rep max). However, instead of doing two to three reps, you will just do one rep and rack the weight for fifteen to twenty seconds. Your goal would be to repeat this until you have done four singles with fifteen to twenty seconds of rest in between single reps. This would be referred to as a cluster of 4 x 1.

I recommend one to three clusters of 4 x 1, and I would only do them once per week, or once every other week to avoid burnout which can occur when excessively heavy weights are used too frequently.

Chapter 3

High Intensity vs. Controlled Intensity

After giving you a basic idea of how to do cluster set training, it is important to know that there are a lot of different ideas that people have in regard to use cluster sets. It is common for lifters to really push themselves on cluster sets to the point where they are either grinding out slow, strenuous reps at the end of the cluster set, or they end up doing less and less reps per mini set within a cluster. For example, they may start out by pushing extremely hard to perform three reps on their first mini set of a cluster, then squeeze out two hard reps on their second and third mini sets, and finish with one strenuous rep that they can barely grind out for their fourth and final mini set. This would be the way to do a cluster set if you love high intensity training. I bring this up as an option for those who prefer high intensity training, but most of what I recommend in this book is based on what I refer to as strong training. What is strong training?

There are three types of strong training including:

1. Strong reps
2. Strong sets
3. A strong lifting motion

Each type of strong training will be explained.

Strong Reps

Strong reps are being done as long the same rep speed can be maintained throughout each mini set of the whole cluster set. If rep speed starts to slow down, weak reps are being used. I believe that the majority of people will receive the most long term benefit by sticking with strong reps. You may hit a weak rep on your very last rep of a cluster, but my recommendation is to avoid doing more than one weaker slower rep at the end of your cluster set.

Strong sets

Strong sets are sets that allow you to keep repeating the same number of strong reps in each cluster. For example, you may be able to do two clusters of 4 x 3. However, when you try a third cluster with the same weight, you can no longer complete a full cluster of 4 x 3 and you end up doing three reps on your first two mini sets, but you can only manage two reps on your third and fourth mini sets. This is an indication that your strength has dropped on your third cluster in comparison to your first two clusters. My advice is to do clusters as long as you are at full strength, but avoid doing them in a weakened state.

A Strong Lifting Motion

I believe it is important to maintain a strong lifting motion when training with heavy weights. A strong lifting motion is a smooth nonstop lifting motion that does not slow down, pause, or stop in mid-motion. Of course the weight will always stop at the bottom when lowering the weight, but a strong lifting motion refers specifically to the upward (i.e. positive) lifting motion of a rep. A strong lifting motion applies most directly to heavy training with single reps. If the weight is so heavy that you cannot perform a smooth nonstop lifting motion, it is too heavy. If you are using a weight that allows you to start out with a smooth nonstop lifting motion, but you keep repeating single reps to the point where your lifting motion begins to slow down, or you experience pauses in mid-motion, you have reached a point where you are in a weakened state and should stop your cluster set.

I know that some people will prefer to use a high intensity form of cluster set training that includes pushing to the point of weak reps, weak sets, and a weak lifting motion. This is perfectly fine as long as it is working for you, however, if your progress comes to a stop, then my advice is to follow the guidelines for strong reps, strong sets, and a strong lifting motion. High intensity training give you quick results in a short amount of time, but the guidelines in reference to strong training are designed to help you achieve consistent progress over a long period of time.

How Often to Use Cluster set Training

For those who choose to use cluster set training as a high intensity method, it can make high intensity training even more intense. This being the case, you may need to limit high intensity cluster set training to once every two weeks for basic exercises such as squats, leg presses, deadlifts, bench presses, and overhead presses, however, you may be able to use it more often (such as once per week) with isolation exercises for smaller muscle groups when doing curls, triceps extensions, and dumbbell raises to the side, front, or back.

For those who follow the guidelines in reference to strong training, you can probably use cluster set training in every workout. However, if you notice that you aren't recovering between workouts when using cluster set training on a regular basis, you would need to cut back on cluster set training according to your ability to recover from it.

Chapter 4

Pyramiding Your Clusters Sets

Cluster sets can be done in conjunction with the pyramid method in which more reps are done for the first cluster set, and weight is added with a decrease in reps for each successive cluster. If you apply this to three clusters consisting of 3 x 4, 3 x 3, and 3 x 2, you would carry out your clusters in the following manner:

Cluster #1: 3 x 4 @ 75%

For your first cluster consisting of 3 x 4, you would start with a weight that you can perform for eight to ten consecutive reps (i.e. 75% of your single rep max), but instead of doing eight reps, you would do a cluster of three mini sets consisting of four reps each. Rest fifteen seconds between each mini set and rest at least four minutes before doing another cluster for the same muscle group.

Cluster #2: 3 x 3 @ 80%

After doing your first cluster, you would add weight for the second cluster by choosing a weight that you would normally use for six reps (about 80% to 85% of your single rep max), but you will do a cluster of three mini sets consisting of three reps each. Rest fifteen seconds between each mini set and at least four minutes before doing another cluster for the same muscle group.

Cluster #3: 3 x 2 @ 85% to 90%

After finishing your second cluster, add weight to your third cluster by choosing a weight that you would normally use for four strong reps, but you will do a cluster of three mini sets consisting of two reps each. Rest fifteen seconds between each mini set. This would complete the pyramid of three clusters.

Chapter 5

Clusters of 6 x 6 and 8 x 8

The concept of cluster sets has been around for a long time. At the current time, cluster sets are usually thought of in conjunction with the use of heavy weights, but cluster sets can be done with moderate or light weights as well. There is no rule that a cluster must consist of three mini sets or four mini sets as a cluster can be modified to consist of more or less mini sets, and more or less reps if desired.

When using light weights, clusters will consist of more reps, and more sets. Eight by eight (8 x 8) training can be done to accomplish this. Perhaps 8 x 8 training was popularized by most of all by a highly renowned trainer by the name of Vince Gironda. Vince preferred fast paced workouts with very little rest between sets. When doing eight sets of eight reps for an exercise, Vince would use the same weight for each set and only rest about fifteen seconds between each set. This is nothing more than an extended cluster set with fairly light weights.

Light Weights and Short Rests For 8 x 8

Heavy weights cannot be used for a cluster of 8 x 8 because it involves too many reps within a short time period. You will probably be able to use anywhere from **40% to 50%** of your single rep max depending on how hard you push, and how long your cluster set takes. It should take anywhere from three and half to five minutes to do all 64 reps of an 8 x 8 cluster. The faster you complete your cluster of 8 x 8, the harder it will be.

How Powerlifters Use 8 x 8

When powerlifters use an 8 x 8 cluster, they tend to **use it for assistance exercises** such as triceps extensions, hyperextensions, and dumbbell raises to the front or back.

How Bodybuilders Use 8 x 8

Bodybuilders use clusters of 8 x 8 for just about any exercise, but I must warn you that a cluster of 8 x 8 when doing deadlifts or barbell back squats would be very tough in terms of cardiovascular demands. However, there are other variations of squats such as belt squats, hack squat, and goblet squats that work very well with 8 x 8 clusters.

Some bodybuilders use two, three, or even four clusters of 8 x 8 for a muscle group. This is a lot of sets (up to 32 sets) and is done in order to get the fullest pump possible and burn a lot of calories. You would only do this many sets if you respond extremely well to high volume training, or your main concern is to burn as much fat as possible for better muscle definition.

Knowing What to Expect

It helps to know ahead of time what to expect in terms of how a cluster of 8 x 8 will feel. The first three sets will probably feel easy if you are using the right amount of weight, but don't panic by thinking that you are not using enough weight. As you continue past three sets, fatigue will quickly start to accumulate with each successive set, and the sets will start to grow in difficulty. You will start to sense an increase of exercise stress by the fourth set and the easy work is definitely over by the fifth set. You will probably notice a significant burn in your muscles by your sixth set, and a pronounced burn when doing your seventh and eight sets. Eight by eight clusters start out easy, but they are hard by the finish.

Adjusting Your Intensity for Best Results

Those who prefer high intensity training will probably be squeezing out slow strenuous reps by the end of their last set or two of an 8 x 8 cluster. If this type of intensity seems to produce positive results, keep doing it. However, if you start to experience burnout from using a high intensity version of 8 x 8 clusters, I suggest staying within the boundaries of strong reps and sets. This means that even though your last set will feel significantly harder than your first set, your first and last set should look the same in terms of rep speed and the amount of time it takes to complete each set. Of course excellent form should be used throughout each set. You will find these boundaries help you to leave enough in reserve to keep adding weight little by little over time in order to make consistent progress.

How Often to Do 8 x 8 Clusters

Of those who stay within the boundaries of the strong training guidelines and use 8 x 8 clusters on a regular basis, most people will be able to do them **two or three times per week for each muscle group** without having any problems with recovery. If your intensity level surpasses these boundaries and you are doing a high intensity version of 8 x 8 clusters, or you are doing multiple 8 x 8 clusters for each muscle group, it will be more difficult to recover and you may only be able hit each muscle group with 8 x 8 clusters once per week.

6 x 6 Clusters

Another popular fast paced routine is six sets of six reps which forms a 6 x 6 cluster. It works the same way as an 8 x 8 cluster except that you will only be doing six sets of six reps for a total of 36 reps, instead of eight sets of eight reps for a total of 64 reps. Since you will be doing less total reps when performing 6 x 6 clusters, you will be able to use more weight. Most likely you will be able to use somewhere between 55% to 60% of your single rep max for a 6 x 6 cluster.

As with 8 x 8 clusters, powerlifters are most likely to use 6 x 6 clusters in conjunction with assistance exercises. In contrast, bodybuilders are more likely to use 6 x 6 clusters in conjunction with any exercise, and they may want to do two or more clusters of 6 x 6 for each muscle group.

6 x 6 Training Frequency

Since 6 x 6 clusters consist of only 36 reps and do not include as much training volume as 8 x 8 clusters, most people will find that they can do 6 x 6 clusters **three times per week for each muscle**

group without over training. Those who push hard on the intensity or do two or more clusters per muscle group are more likely to be limited to hitting each muscle group once or twice with 6 x 6 clusters.

Chapter 6

8 x 8 and 6 x 6 Intensity Variations

One of the advantages of using eight sets of eight reps or six sets of six reps in combination with cluster set training is that the length of the clusters can be varied in order to vary the intensity. Just as powerlifters often vary their training intensity by utilizing light, medium, or heavy days within a week, clusters can be divided into three groups of intensity according to their length including:

1. Short clusters
2. Medium length clusters
3. Long clusters

The length of a short, medium, and long cluster will vary slightly depending on whether you are doing 6 x 6 training or 8 x 8 training. Let's see how this works by looking at 8 x 8 training first.

When you consider the amount of intensity in relationship to the length of the cluster for 8 x 8 training, you will find that:

Short clusters are the least intense: A small cluster would equal 2 x 8.

Medium clusters are moderately intense: A medium cluster would equal 4 x 8.

Long clusters are the most intense: A long cluster would equal 8 x 8.

How many small, medium, and long clusters would it take reach eight sets?

It takes 4 short clusters of 2 x 8 to perform eight total sets.

It takes 2 medium clusters of 4 x 8 to perform eight total sets.

It takes 1 nonstop cluster of 8 x 8 to perform eight total sets.

When you consider this, you will find that you have three options for how you can split up the clusters for 8 x 8 training. These options include:

1. Four clusters of 2 x 8
2. Two clusters of 4 x 8
3. One cluster of 8 x 8

The 4 Clusters of 2 x 8 Option

It is important to understand that the rest period between sets within a cluster would be very short. For example, if you were doing the 2 x 8 option, two sets would be done in rapid succession with only fifteen seconds between the two sets. After doing two sets, you have completed a short cluster and you should rest two to three minutes between each cluster of 2 x 8.

The 2 Clusters of 4 x 8 Option

When doing a cluster of 4 x 8, four sets would be done in rapid succession with fifteen seconds rest between sets. After completing a cluster of four sets, you would rest at least three minutes before doing another cluster of 4 x 8 for the same muscle group.

The Single Cluster of 8 x 8 Option

When doing an 8 x 8 cluster, you would do all eight sets in rapid succession with only fifteen seconds of rest between sets.

6 x 6

When doing a 6 x 6 workout, you also have three options for how you can split up the sets including:

1. Three clusters of 2 x 6
2. Two clusters of 3 x 6
3. One cluster of 6 x 6

Once again, you would rest only fifteen seconds between sets within each cluster, but you would rest at least two minutes between clusters.

Easy, Medium, and Hard Workouts

The variation in cluster length will allow you to vary your workout intensity. To look at how you might apply different workout intensities, let us assume that you will be using the same weight of 130 pounds for seated pulley rows, and the weight will remain the same regardless of the length of your cluster. It doesn't matter whether you are doing clusters of two mini sets in rapid succession, three consecutive mini sets in rapid succession, or six mini sets in rapid succession, you will still use 130 pounds in each case. It should be obvious that a shorter cluster would be much easier than a longer cluster because the longer cluster will produce far more fatigue and will be much harder by the end of the cluster.

Some people like to divide their workouts into easy, medium, and hard workouts. An example of this would be to do easy workouts on Mondays, a moderately hard workout on Wednesdays, and a hard workout on Fridays. This can easily be done by varying the length of the clusters from workout to workout by using the following options:

Easy Workout

6 x 6 is divided into three clusters of 2 x 6

Cluster 1 = 2 sets x 6 reps

Cluster 2 = 2 sets x 6 reps

Cluster 3 = 2 sets x 6 reps

Rest two to three minutes between each cluster of 2 x 6

Moderately Hard Workout

6 x 6 is divided into two clusters of 3 x 6

Cluster 1 = 3 sets x 6 reps

Cluster 2 = 3 sets x 6 reps

Rest two to three minutes between each cluster of 3 x 6

The Hardest Workout

6 x 6 is done as just one cluster of 6 x 6

All six sets are done in rapid succession.

This same exact concept can be applied to 8 x 8 training. Assuming you use the same weight regardless of the length of the cluster, the clusters can be short, medium, or long according whether you want to do an easy workout, a moderately hard workout, or a hard workout as follows:

Easy Workout

8 x 8 is divided into four clusters of 2 x 8

Cluster 1 = 2 sets x 8 reps

Cluster 2 = 2 sets x 8 reps

Cluster 3 = 2 sets x 8 reps

Cluster 4 = 2 sets x 8 reps

Rest two to three minutes between each cluster of 2 x 8

Moderately Hard Workout

8 x 8 is divided into two clusters of 4 x 8

Cluster 1 = 4 sets x 8 reps

Cluster 2 = 4 sets x 8 reps

Rest two to three minutes between each cluster of 4 x 8

The Hardest Workout

8 x 8 is done as just one nonstop cluster of 8 x 8

All eight sets done in rapid succession

Chapter 7

Adding Weight to Short and Medium Clusters

The strategy in the last section involved changing the length of the cluster in order to adjust the difficulty of the workouts. The difficulty of the workout was not determined by the amount of weight that was used as the weight stayed the same regardless of whether the workouts were classified as easy, moderately hard, or hard. The main variable that affected the difficulty of the workouts was that the longer the cluster, the harder the workout.

In this section, the workouts are still going to be divided into clusters that are short, medium, and long, but there will be no easy, medium, or hard workouts. All of the workouts will be hard because the weight will be changed to compensate for the length of the cluster. More weight can be used for short clusters because you won't be doing as many reps per cluster. In contrast, it will be necessary to use less weight for long clusters. By doing this, you will be able to increase the weight from workout to workout. Let me give you an example.

First Workout: 200 lbs.

We'll imagine that you are going to be doing a series of leg press workouts using eight sets of eight reps. In the first workout you will be doing a single cluster of eight sets in rapid succession with only fifteen seconds rest between each set, and the workout will be done with 200 pounds for each set.

Second Workout: 240 lbs.

For the second workout, you will increase the weight to 240 pounds because the clusters will be shorter as you will be doing two clusters of 4 x 8. This means each cluster will consist of a four sets of eight reps and the sets will be done in rapid succession with only fifteen seconds between sets. After finishing the first cluster of four sets, you will rest three to five minutes before you do the second cluster of four consecutive sets.

Third Workout: 270 lbs.

For your third workout, you will increase the weight to 270 pounds because you will be doing four clusters of 2 x 8. This means each cluster will consist of two sets of eight reps with only fifteen seconds rest between the two sets. After finishing the first cluster of two sets, you will rest for three minutes before you do another cluster of two consecutive sets. Repeat the process until you have completed four clusters of two sets.

Notice that the weight increases from 200 pounds in the first workout, to 240 pounds in the second workout, to 270 pounds in the third workout. As the length of the clusters grow shorter, the weights increase. The 8 x 8 leg press workouts that have been described are listed below:

Workout #1

The lightest Workout with 200 lbs.

Just 1 cluster = 8 sets x 8 reps @ 200 lbs.

All eight sets done in rapid succession

Workout #2

A heavier Workout with 240 lbs.

Cluster 1 = 4 sets x 8 reps @ 240 lbs.

Cluster 2 = 4 sets x 8 reps @ 240 lbs.

Make sure to stop after each cluster of 4 x 8 and rest three to five minutes before repeating a cluster for the same muscle group. You may work a nonrelated muscle group between cluster sets for the same muscle group.

Workout #3

The Heaviest Workout with 270 lbs.

Cluster 1 = 2 sets x 8 reps @ 270 lbs.

Cluster 2 = 2 sets x 8 reps @ 270 lbs.

Cluster 3 = 2 sets x 8 reps @ 270 lbs.

Cluster 4 = 2 sets x 8 reps @ 270 lbs.

Make sure to stop after each cluster of 2 x 8 and rest at least three minutes before repeating a cluster for the same muscle group. You may work a nonrelated muscle group between cluster sets for the same muscle group.

Chapter 8

41's

I will share another cluster strategy that I refer to as *Three 41's* because you will do a mini set of four reps followed by a mini set of one rep, and you will do it three times. This will make a cluster consisting of six mini sets with only fifteen seconds rest between each mini set.

When doing 41's, the fours are done with a weight that you can normally use for ten to twelve consecutive reps, and the 1's are done with a weight that you can normally do for three to four reps. It is almost impossible to switch back and forth between the two weights at a rapid pace unless you are using machines that have a weight selector pin that makes it easy to switch the amount of weight. You may also have a training partner who doesn't mind the process of repeatedly taking weight off of a barbell and putting it back on again as you quickly proceed through your cluster of 41's

Most likely you would do about two clusters of 41's for each muscle group. If you were doing 41's with bench presses, you would use about 70% to 75% of your single rep max for the 4's, and about 85% of your single rep max for the 1's. An example of two cluster of 41's for the bench press would be written as follows:

Cluster 1

Set 1: 4 reps @ 70%

Set 2: 1 rep @ 85%

Set 3: 4 reps @ 70%

Set 4: 1 rep @ 85%

Set 5: 4 reps @ 70%

Set 6: 1 rep @ 85%

Make sure to rest only 15 seconds between each set. When you finish the cluster of six sets, rest three to five minutes before doing another cluster for the same muscle group.

Cluster 2

Set 1: 4 reps @ 70%

Set 2: 1 rep @ 85%

Set 3: 4 reps @ 70%

Set 4: 1 rep @ 85%

Set 5: 4 reps @ 70%

Set 6: 1 rep @ 85%

Other Options

Of course you don't have to choose four reps and one rep, you can choose any combination of weights and reps that suits you. For instance you can alternate five reps with two reps, or six reps with two reps, or eight reps with four reps, or any other combination that helps you achieve a better workout.

Chapter 9

Explosive Force And Speed Development

The last form of cluster set training to be discussed will be in reference to the development of lifting with explosive force and speed. In order to develop force and speed, you must lift with force and speed and you can't lift with speed if you are using heavy weights, you must use 40 to 60 percent of your single rep max.

Use Explosive Rep Training with Bench Presses, Squats, and Deadlifts

Explosive force training is most commonly done by powerlifters and athletes who need to develop speed and power. They generally stick with power lifting exercise such as squats, bench presses, and deadlifts when doing explosive force training. Bodybuilders are much less likely to use explosive force and speed training and I don't recommend that it be done in conjunction with isolation exercises such as curls, triceps extensions, lateral raises, flies, leg extensions, and leg curls.

Only Three Reps per Set

The ability to impart force and speed into your lifts is always the greatest at the start of a set when your muscles are fresh and free from fatigue. For this reason, when you train for force and speed development you will only do the first part of a set by only doing **three reps and stop**. If you don't stop and keep repeating reps, fatigue will accumulate and the ability to lift with maximum force and speed will be hindered.

A Cluster = 4 x 3 with 20 Seconds Rest between Mini Sets

After doing three explosive reps, you rest for twenty seconds and continue doing sets of three reps with twenty seconds of rest between sets until you have completed a cluster of four sets of three reps (4 x 3). By the fourth mini set of three reps your muscles will start to fatigue and you will need to rest ninety seconds before doing the next cluster of 4 x 3.

3 Clusters of 4 x 3 with 50%

Explosive force and speed training should be done with 50% of your single rep max for three clusters of 4 x 3 which will amount to a total of 36 reps.

4 Clusters of 4 x 3 with 40%

If you want to go really light with only 40% of your single rep max, do four clusters of 4 x 3 for a total of 48 reps.

3 Clusters of 3 x 3 with 60%

If you want to go heavier than 50%, use 60% of your single rep max to do three clusters of 3 x 3 for a total of 27 reps.

Using maximum force and speed on all of your reps will create a fairly taxing workout. This type of training with explosive force is generally only done once per week for a given exercise. In other words, if you want to use this type of training for bench presses and squats, do it for each exercise only once per week.

Chapter 10

Progression

If you choose to use any of the forms cluster set training that have been discussed, I am assuming that your purpose for doing so is to make progress. When it comes to progress, you can either **push** yourself to make progress, or you can **program** yourself to make progress. Pushing yourself to make progress is based on constantly going all out in order to outdo your previous best. In contrast, programming yourself to make progress is based on repeating workouts that are done using a sufficient amount of effort, but not a maximum amount of effort. The goal is then to gradually increase the weight without experiencing a long term increase in effort. The last two sentences are very important. Just to make sure you did not overlook them, they are going to be repeated as a single paragraph that you should carefully read:

Programming yourself to make progress is based on repeating workouts that are done using a sufficient amount of effort, but not a maximum amount of effort. The goal is then to gradually increase the weight without experiencing a long term increase in effort.

You may experience a temporary increase in effort anytime weight is increased, but as you get better at lifting the added weight, it will start to become easier before you add weight again. The overall effect is that effort remains nearly equal over time even though weight is gradually being added over time. The only way you can increase weight without increasing the effort is to gain strength. The way in which this process is applied to your workouts requires an example.

Effort on a Scale of 1 to 10

We'll imagine that the amount of effort that it takes you to lift 100 pounds for a cluster of 4 x 3 can be rated on a scale of 1 to 10 with one being the least amount of effort, and ten being maximum effort. We'll also assume that the amount of effort that it takes you to lift 100 pounds for a cluster of 4 x 3 is an eight. This means that you could probably do an additional two reps for a total of five reps on your last mini set if you pushed to the point of max effort.

In order to program your body to work at an effort level of eight, your goal is to lift 100 pounds for clusters of 4 x 3 as many times as possible without the clusters becoming harder than an eight. The more workouts and the more times you perform clusters of 4 x 3 with 100 pounds at an effort level of eight, the more you are going to program those conditions into your body.

Don't Make This Mistake

It would be a mistake to do a workout where you keep repeating clusters of 4 x 3 with 100 pounds to the point where it starts to get harder and requires an effort level of nine or ten to complete a cluster of 4 x 3. Doing this would program your body to perform a cluster of 4 x 3 with 100 pounds at a more

difficult level of effort. You don't want to teach your body that it must struggle to do a cluster of 4 x 3 with 100 pounds.

Goal: More Weight; Not More Effort. Stay at an 8

If you program your body to function at an effort level of eight, and you raise the weight from 100 pounds to 105 pounds, your body is going to want to keep lifting at an effort level of eight, even though you raised the weight. Your body does not want the added weight to become harder to lift, so it is going to gain some strength in order to make it just as easy to lift 105 pounds for a cluster of 4 x 3 as it was to lift 100 pounds for a cluster of 4 x 3. If you add five pounds every month, but your body keeps gaining strength so that you can keep lifting the added weight at an effort level of eight, then you will be able to keep adding weight over time without increasing the amount of effort. You may experience a slight increase in effort each time weight is added, but your body will recalibrate the amount of effort back an eight by gaining strength.

Program for Long Term Progress

In the beginning stages of training, pushing yourself with maximum effort to gain strength may work really well, but there often comes a point when it causes burnout. Burnout causes adaptive resistance and adaptive resistance means that your body has reached the point where it refuses to make the adaptations that are necessary to gain strength. At that point, programming your body for strength will generally bring more consistent gains than pushing for strength. I personally believe that **programming your body to function at an effort level of a 7 or 8 is a more effective method for achieving long term progress than constantly pushing to an effort level of ten with max effort.**

Microloading

Another method that I strongly, strongly, strongly believe in for progression is microloading. Microloading consists of adding weight to your lifts in very small increments of a pound or less. In order to do this you must have access to fractional weight plates that are a half pound or less. If you do an online search for FRACTIONAL WEIGHT PLATES, you can usually find several options in regard to the fractional weight plates that you order. Once you have five pounds worth of fractional weight plates, you can add a pound per week to your lifts and you will be using an additional fifty pounds of weight by the end of the year. You may be able to add faster than this for lifts like leg presses and bench presses, but you will have a hard time adding fifty pounds to curls or triceps extensions in a single year.

The key to using fractional weight plates effectively is to start at an effort level of a seven or eight on your clusters, and then add a little weight every week or two without ever exceeding an effort level of a seven or eight. Adding weight without adding effort is the key to long term gains, and one of the most effective ways to accomplish this is with microloading.

Decrease the Amount of Time between Mini Sets

Another way to make progress is to start with twenty seconds of rest between mini sets and gradually reduce the amount rest between mini sets a second each week until you're down to fifteen seconds

after five weeks, or even ten seconds after ten weeks. If you can do this and still lift the same amount of weight for the same amount of mini sets and reps, you can add five pounds to your lifts and repeat the process again with the additional weight.

Change the Amount of Reps in the mini sets

A final way to plan your progress is to redistribute the amount of reps that are done for each mini set within a cluster. You don't change the number of reps that make up a cluster, you just change the way you distribute the reps. For example, if you start with a cluster of 6 x 2, you can change after a couple of weeks to clusters of 4 x 3. A couple of weeks later you can change to clusters of 3 x 4, and finally 2 x 6. Notice that in each case, whether it is 6 x 2; 4 x 3; 3 x 4; or 2 x 6; the total amount of reps within each cluster is 12 reps, but the mini sets keep getting bigger as they start with 2 reps and eventually increase to 6 reps. Of course you will find that as you progress from 6 x 2 to 2 x 6 that the clusters become more challenging. You can then add a little weight and repeat the same process again.

Chapter 11

Use Cluster Sets To Your Advantage

The cluster set methods described in this book are not the only way that cluster sets can be performed. With some experience and creativity, you can use cluster sets to your advantage by modifying and implementing them in whatever way necessary to achieve your own goals. Cluster sets are one of my favorite training methods because they can help to improve several fitness qualities with workouts that can be done in a short amount of time. If you alternate your cluster sets back and forth between muscle groups, your workouts will move quickly. Not only will these quick workouts lead to improvements in muscle size and strength, but you may find the workouts stimulate your metabolism for improved lean body composition and better cardiovascular fitness. Regardless of how you choose to implement cluster sets into your workouts, my hope is that they prove to be beneficial in helping you to achieve your goals. Best of training to you.

About The Author

Mark Sherwood is a long time fitness enthusiast who has pursued weight training and other fitness activities for over thirty years. His educational and professional background include a B.S. degree as an exercise specialist in physical education from the University of Wisconsin Madison, and positions as a fitness instructor and physical education teacher.

One of Mark's passions is to distinguish between strength training concepts that are consistently effective as opposed to those that are effective for a short time period. Through his education, research, and personal trial and error, he has endeavored to gain the necessary knowledge to share effective training strategies with those who desire to maximize their training results.

Mark resides with his family in Southern California. For more training resources from Mark, you can visit www.precisionpointtraining.com. In addition, you can view more books on strength training that he has authored on the next page.

Additional Resources

A Quick Guide To Strength

Beginning Strength Training

High Frequency Strength Training

Heavy Frequency Training

Individualized Workouts For Hardgainers

Overcoming Strength Training Plateaus

Quick Workouts For Quick Muscles

Rest-Pause Training

Strength Training Capacity

Strength Training Thresholds

Strength to the Max

The 1 x 100 Challenge

The Peak Strength Principle

12-10-8-6: A Workout Plan For Building Size And Strength