

Dreaming of Big Guns!!!! Curls Might Not Help

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Abstract

Every regular gym member will tell you, in start of summer every gym gets most populated. With time to wear half sleeve T-shirts and shirts, majority of college going youngsters gets motivated for workouts in a bid to flex arms. Be it impressing any individual or get attention in public, good muscular arms are always a fashion statement that never goes outdated.

As a strength coach, it pains me to walk into any commercial gym and see some skinny kid performing endless isolation movements. I want to pull him aside and teach him the ropes. I'd show him how to hit those deep squats, how to hammer out some dead lifts, and how to press, chin, dip and row. Surely this would enable him to finally start making some gains.

Every regular gym members must have noticed, group of young college students doing numerous curl, all types of curls with some tiny weight and that too in almost their every gym sessions. The desperation of getting big arms in no time, bad selection of exercises (normally searched from internet), overtraining small bicep muscles, all these combine to cause a serious frustration in young mind, ultimately making them reluctant to their fitness goals.

So a never ending debate of what exercises are best for gaining lean muscles comes into play. Isolated exercises or compound exercise, Bodybuilding routine or power lifting routine which makes muscles grow more is been a hot debate and research topic for decades.

In this research report, the study of isolated versus compound exercise was studied. Two groups of eight students were trained on two different workout routines. One group underwent pure bodybuilding routine comprising isolated movements and other group was subject to compound power lifting moves. The diet plan of both the group was same and so was their rest periods and sleep hour.

Keywords: muscular arms, commercial gym, flex arms

Introduction

There has been a great deal of debate and controversy over which type of exercise (isolated or compound) lead to better muscle growth. Ask different people and you will get different answers. Some will say that compound exercise are all you need, they train every muscles in your body and are highly functional to boot. Others will say compound exercises are overrated or even dangerous, and that the right isolation exercise can give everything to achieve muscles goal.

Compound movements occur at more than one joint and work more than one muscle group. Isolation exercises occur at only one joint and target only one muscle group. For example, the squat exercise involves movement at your knee joint and hip joint. This compound leg exercise works your hamstrings, quadriceps, glute and lower back. The leg extension exercise occurs only at the knee joint and works only your quadriceps muscles. Compound exercises often recruit the use of abdominal, back and other key core muscles, used for stabilization purposes. In other words, compound movements use more of the whole body ^[1, 2]. If you only performed isolation exercises, you wouldn't experience the same positive effect on overall body strength.

Compound exercises save you time because one exercise works several muscle groups. If you want to work your thighs, you can do both leg extensions and hamstring curls, or you can do squats. Compound exercises stimulate more muscle tissue, meaning you don't have to do as many exercises to hit all your muscles. You can target all the major muscles in your

body with a handful of compound exercises: chest presses for the chest and triceps, bent-over rows for the back and biceps, squats for the legs and overhead presses for the shoulders.

Isolation exercises, such as biceps curls, triceps extensions and leg extensions, still have their place in a workout routine. They allow you to zero in on one specific muscle, which you can't do with a compound exercise. For example, you would use isolation exercises to focus on a single muscle that lacks strength. Compound exercises take more energy to perform, so place these movements at the beginning of your workout and save the isolation exercises for the end.

One of the biggest differences between isolation and compound exercises is their fat-burning potential. You need a calorie deficit to lose weight and that can only occur with compound exercises. You're performing big movements that involve a lot of different muscle groups and the potential to burn more calories increases significantly. An added benefit is that fat-burning continues for an hour or more after your compound exercise workout ^[3].

Methodology

The two groups underwent two different workout routine. The current arms sizes of all 16 trainees were measured and recorded. Both group was given the same diet plan and it was ensured both group members takes 8-10 hours of sleep.

Arm day was routine only two days a week. On Monday both the group was made to do Biceps and on Thursday both the group worked triceps. For maximum results both the group

rested or conditioned apart from cardio training on other weekdays.

Routine followed by Group A (Power lifting and Compound exercises)

Monday (Biceps workout)

- Pull Ups – 5 Sets of 6-8
- Deadlift – 4 sets of 6-8
- Barbell row – 3 sets of 6-8
- One arm Dumbbell rows – 4 sets of 5-7
- Pull down – 4 sets of 6-8
- Barbell curl – 1 Set of 7 full, 7 partial top to half way and 7 bottom to



(Pictures for representation purpose only)

Thursday (Triceps workouts)

- Close grip bench press – 3 set of 4-6
- Close grip barbell overhead press – 4 sets 6-8
- Floor press – 3 sets
- Weighted Dips – 3 sets
- Overhead Dumbbell extension – 4 sets of 6-8
- Diamond Pushups – 3 sets

Routine followed by Group B (Isolated exercises)

Monday (Biceps workout)

- Barbell curl – 3 sets of 8-10
- EZ bar curl – 3 sets of 8-10
- Dumbbell curl – 4 sets of 10-12
- Machine curl – 4 sets of 8-12
- Alternating curl – 3 sets of 8 to failure (Last exercise)

- Preacher curl – 4 sets of 10-12
- Cable curl – 4 sets of 10-12

Thursday (Triceps workouts)

- Extension – 3 sets of 10-12
- Kickback – 4 sets of 10-14
- Dips – 4 sets to 12-16
- Overhead single hand dumbbell extension – 4 sets of 12-16
- Triceps extension machine – 4 sets of 10-12

Result

After completion of 45 days training results were exceptional Both groups significantly increased biceps muscle thickness, Compound exercise group slightly more with average of 12.5% and isolated exercise group by an average of 11%. Both groups also significantly increased 1RM strength, but the powerlifting group had greater increases in the bench press and showed a trend for greater increases in the squats and Deadlifts.

The group trained with powerlifting compound exercise routines also got noticeable gain of lean muscles and strengths. The study showed that muscle hypertrophy is similar between power lifting and bodybuilding type routines provided that volume is equated between protocols. Moreover, the study showed that maximal strength is slightly greater in a power lifting protocol.

The best way to effectively gain muscle mass and definition in an even and balanced way requires a combination of isolation and compound exercises, though the bulk of exercise should involve compound movements for more people.

Compound movements including squats, deadlifts, bench press, bent over rows, military press, chins and dips have stood the test of time and are notorious for delivering incredible physique gains. They form the foundation of any good strength & conditioning program. However, they alone will fail to deliver an optimal physique.

Isolation movements sometimes activate a particular muscle or subdivision of a muscle better than compound movements. In addition, sometimes isolation exercises are better suited for stretching a particular muscle or creating a deep burn or pump. This equates to a greater hypertrophic stimulus via all three primary mechanisms of muscle growth: mechanical tension, metabolic stress and muscle damage [5, 6].

Always incorporate compound movements into your training, but don't omit isolation movements or your physique will suffer [7].

Concluding Remarks

Compound exercises require more muscle fiber to be stimulated. Take for example a squat vs. leg extensions- in a squat, a compound movement, you're working your quads, hamstrings, gluts, lower back/core, and calves simultaneously. Leg extensions, an isolation exercise, only work your quads [8].

The more muscle fibers being stimulated, the better. Because compound movements work many different muscle groups at once and stimulate more muscle fibers, you end up spending less time in the gym. With compound exercises, you can perform just 3-5 total exercises and cause enough stress to stimulate hypertrophy, aka muscle growth, which is good for both males and females

When your workouts consist mostly of compound exercises, you're training with intensity, and you're getting proper rest, your body will begin producing more HGH (human growth hormone) and testosterone. The more taxing your workouts, the more these hormones will be released, the more muscle growth will occur^[9].

This one is for the ladies and those who want to get lean. I know all of this talk about HGH, testosterone, and muscle fibers probably has you worried. Fear not, if you're a woman you simply do not naturally have potential to get huge due to genetics and hormones. Compound exercises are still the best option for you, though. Because you're working multiple muscle groups at once, your body is naturally going to burn more energy (expend more calories). The more calories you burn, the easier it is to get into a caloric deficit and there for lose fat.

An isolation exercise works just one major muscle group at a time. Think bicep curls, triceps kickbacks, side lateral raises, front raises, leg extensions, hamstring curls, etc. Isolation exercises are great for adding definition and toning. While compound exercises are best for adding muscle mass, and are generally better, isolation exercises can really help you target certain muscle groups and sculpt them to your satisfaction. This is why you see bodybuilders doing a lot of isolation exercises.

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