Body Recomposition: What it is and How to do It Effectively

by
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Body recomposition is somewhat of a complicated subject, and there are some strong opinions out there.

You see, we are led to believe that to build a great body, you need to do something like this:

Bulk ⇒ Cut ⇒ Bulk ⇒ Cut ⇒ Bulk ⇒ Cut...

After each bulk-cut cycle is done, you should be a little bit bigger, leaner and stronger.

But imagine that you've managed to drastically improve your body composition by building muscle and losing fat at the same time. After all, don't we all want that?

The problem is, most people see it as black or white. Possible or impossible. But as with every other aspect of fitness, context is crucial here.

Today, we'll go over body recomposition, who can do it effectively, how to pull it off and what might be a better option for certain people.

Defining Body Recomposition

Body recomposition is the process of building muscle and losing fat at the same time. Say, for example, we take an average skinny fat beginner (5'10", 170 pounds, and 22% body fat) and put him on a recomp protocol:

Over the months, if his body weight stays roughly the same, but his body fat percentage goes down, and he gains muscle and strength, he would have successfully done a recomp.

It sounds good in theory, but does it work?

Let's face it:

Both bulking and cutting can be mentally taxing for their separate reasons:

When trying to lose fat, you have to eat fewer calories than you would like and you have to deal with the fact that you are not as muscular as you thought you were (body fat has a way of making us appear more jacked than we really are).

When trying to build muscle you get to eat more food, but you have to deal with the fact that your definition is going to fade (Unless you're one of these dudes who just packs on muscle with almost no fat. In which case, screw off, k?).

So naturally, body recomposition sounds fantastic. Who wouldn't want to gain the benefits of bulking and cutting at the same time?

And yes, dozens of studies have shown body recomposition to work in untrained individuals (one, two, three, four). But it's not just in beginners, either:

In this study from 2012, eight elite level gymnasts were put on a ketogenic diet and consumed just shy of 2000 calories per day. Keep in mind that these guys meant business: they were already very lean (~8% body fat), trained a total of 30 hours per week and could do 17 pull-ups where their chest touches the bar.

In 30 days, their body fat percentage had dropped to ~5% (minus ~2 kilos/4.4 lbs), their lean body mass had increased by ~ 0.4 kilos/0.9 lbs, and their strength performance had stayed consistent.

In another study, the researchers compared a high (2.5g per kilo/1.1g per lb.) versus low protein intake (0.9g per kilo/0.4g per lb.) for body composition changes in aspiring female physique athletes. They found that the high protein group had managed to gain ~2.2 kilos/4.8 lbs of lean body mass while dropping ~1.2 kilos/2.6 lbs of fat.

In this study done on elite athletes, the researchers found that a moderate deficit (that resulted in roughly ~0.7% body weight loss per week) coupled with four resistance workouts per week led to increases in lean body mass, 1RM strength, and decreases in fat.

And while these findings are impressive, the studies are all short-term (four weeks on average). This is worth noting because body recomposition has its limitations which we need to address here.

Some Limitations to Body Recomposition

The leaner you are, the more difficult it would be to do a recomp

Yes, I know. The gymnasts managed to pull it off. But, again, the study was short-term (only 30 days) and not to mention that each of the participants had to go through very strenuous training (which can also play a role, we don't know). Had they carried out this experiment for more than a month, the results could have started to shift.

Generally speaking, the leaner you get, the more resistant your body becomes to losing fat and keeping muscle mass (as is commonly seen in contest prep). In other words, your body starts breaking down more and more muscle mass (the metabolically costly tissue) while protecting fat as much as it can (for survival).

The more advanced you are, the more difficult a recomp would be

As you become more advanced in the gym, your ability to put on muscle mass is going to decrease. Take a look at this:

Year of Proper Training	Potential Rate of Muscle Gain per Year
1	20-25 pounds (2 pounds per month)
2	10-12 pounds (1 pound per month)
3	5-6 pounds (0.5 pound per month)
4+	2-3 pounds (not worth calculating)

Credits: http://www.bodyrecomposition.com/muscle-gain/whats-my-genetic-muscular-potential.html/

With that said, it's reasonable to assume that pulling off a recomp would be very difficult, even impossible (to a significant degree) after a certain point.

Not a good strategy for those who need to pack on a lot of muscle mass

If you are new to lifting or have been training suboptimally for a while, you are relatively lean (sub 15% body fat) and don't have much muscle mass on your frame, a better option for you is to bulk. Just eat in a surplus for a while.

Too many people are afraid to put on a bit of fluff, yet everyone wants to build muscle. Sacrifice a bit to gain a lot.

Progress is slow, very slow

While doing a body recomposition, your body weight is going to stay pretty consistent, and that's a problem for a lot of people: we tend to gauge progress somewhat based on our scale weight.

We'll go over different tracking methods for recomping, but keep one thing in mind: visual changes and improvements in the gym are going to come very slowly (unless you are an overweight beginner).

With that out of the way, I'd also like to point out that both fat loss and muscle growth, to be done optimally, require specific things. The problem is, they can contradict one another if you try to do them together.

What is required for *optimal* fat loss?

Goal: burn off as much fat as you can while maintaining as much muscle mass as possible.

#1 Requirement

You need to create a moderate caloric deficit - taking in fewer calories than your body is burning. A 400-600 calorie deficit is aggressive enough for you to lose roughly 0.7-1% of your body weight per week while keeping most of your muscle mass and aiming to increase your strength.

#2 Requirement

You need to eat enough protein to maintain the muscle mass that you have. Protein is also very satiating and eating more of it can help you stick to a caloric restriction. A good rule to follow is 1 gram per pound of body weight.

#3 Requirement

You need to lift weights a few times per week and try to increase your strength (or, at least, maintain it) while executing proper form. Your training volume should be controlled. You don't want to create excessive amounts of fatigue when calories are restricted and recovery is impaired.

What is required for *optimal* muscle growth?

Goal: build as much muscle mass as you can while gaining as little fat as possible.

#1 Requirement

You need adequate training volume and progressive resistance overload to drive growth continuously. Unlike for fat loss, however, more training volume is going to deliver more growth, to a point.

#2 Requirement

You need to eat enough protein to provide your body with the building blocks it needs to repair and grow your muscle mass. As with fat loss, the same rule applies: aim for 1 gram per pound of body weight.

#3 Requirement

You need to create a small to moderate caloric surplus - taking in more calories than your body burns each. A 200-250 calorie surplus is enough to maximize muscle protein synthesis while keeping fat gains to a minimum.

These are the necessary requirements for ***optimal*** muscle growth and fat loss. And you've probably realized that combining the two states creates two conflicts of interest:

- Optimal muscle growth requires a caloric surplus, while fat loss, be it slow or fast, requires a caloric deficit.
- Optimal muscle growth is achieved through higher training volumes (research suggests somewhere between 10 and 20 weekly sets), where optimal fat loss requires less volume and a bigger emphasis on maintaining performance.

For the majority of lifters out there, then, trying to cover these requirements at the same time looks like a fool's errand. And it is, for the most part. But, there are four categories of people who can do a successful recomp:

Are you in a good spot to do a body recomposition?

There are four major categories of people who are better off going for a recomp.

1. Skinny fat or overweight beginners

As a skinny fat beginner with little to no experience in the weight room, you are in the perfect position to do a recomp. You don't have much muscle mass on your frame, and you have a good amount of fat you need to lose.

If you were to bulk from this position, you'd put on even more fat that you later have to lose. On the other hand, if you were to go into a cut, you would end up looking very skinny because you don't have much muscle on your frame.

The recomp strikes the perfect balance, and you should take advantage of it.

And much like the skinny fat beginner, the overweight beginner is also in the perfect position to build muscle and lose fat at the same time.

In both cases, once you first start training, your body responds exceptionally well to the stressors, and you gain strength and muscle mass much quicker than someone who is intermediate or advanced.

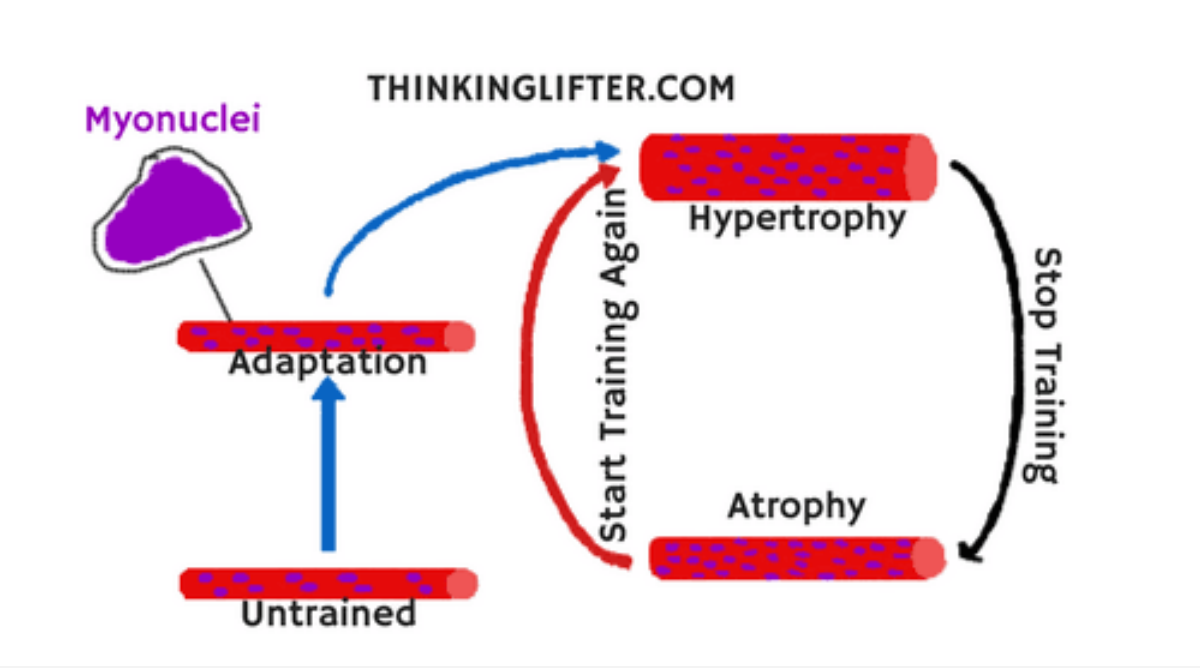
Lifting weights and cardio also improve calorie partitioning, meaning that more calories go into the muscles and fewer get stored as fat.

The only exception here would be very overweight and obese people. In their case, a straight deficit would be a much better option. Even then, they would manage to build a good amount of muscle mass thanks to the excessive amounts of stored energy.

2.People who've taken a long break from training

Experienced lifters who haven't trained for months or years can also lose fat and build muscle simultaneously thanks to muscle memory.

This is because training a given muscle accumulates myonuclei cells. Once you stop training the muscle, it atrophies. But the myonuclei cells stick around and make it much easier for the muscle to grow back to its previous size once training is resumed.



During the regrowth phase, you can lose fat and build muscle simultaneously.

3.Steroid users

t's no secret to anyone that steroids can speed up muscle growth and fat loss. The case is no different for body recomposition.

Steroids help the muscle accumulate myonuclei much quicker which drives faster muscle growth. Being in a caloric deficit does slow down the process, but it doesn't stop it.

If you don't fall in one of the four categories, a better way to gradually improve your body composition would be to focus on one goal at a time. Have dedicated periods of muscle growth and fat loss separated in time.

I don't fall into any of these categories, but I eat keto!

Still no.

I don't fall into any of these categories, but I eat paleo!

Let me check.

Yeah, no.

I don't fall into any of these categories, but I'm vegan!

Nope, same rules apply. Sorry.

I don't fall into any of these categories but screw you, I'm doing it anyway!

Fair enough. Your body, your choices. But consider how it's (likely) going to go:

To build muscle, as we covered above, your body needs to create an anabolic environment. Hormones, metabolism and everything in-between is primed for muscle growth, which also results in some fat gain.

To lose fat, your body needs to create a catabolic environment. Which, again, hormones, metabolism and everything else primes your body for fat loss (and, inevitably, some degree of muscle loss).

Now, when you, as an intermediate or advanced trainee, decide that you are going to disregard basic physiology and build muscle while losing fat, you end up eating fewer calories than you need to build muscle mass, but also more than you should to lose fat.

In other words, you are at maintenance.

And before you tell me "But, but, I'm going to alternate between a deficit and a surplus every day/week!", realize that you need to give your body enough time to create the specific environment (catabolic or anabolic) for your current goal (be it fat loss or muscle gain).

And while research does suggest that body recomposition is not only possible but expected, understand that most of the research is done on individuals with very little to no experience with lifting weights and who are very overweight or obese.

The research that does apply to us is short term.

In your case, body recomposition simply is not the ideal way to get more jacked and less fat over time. We'll go over what you should do to improve your body composition at the end of this guide.

How to Pull off a Body Recomposition in 4.5 Steps

Let me start off by saying that you can go about recomping in numerous ways, as long as you cover the basis below:

Step #1: Maintain a moderate deficit

Pull out your calculator, we are going to do math. Use this formula:

English BMR Formula

Women: BMR = 655 + (4.35 x weight in pounds) + (4.7 x height in inches) - (4.7 x age in years)

Men: BMR = 66 + (6.23 x weight in pounds) + (12.7 x height in inches) - (6.8 x age in year)

Metric BMR Formula

Women: BMR = 655 + (9.6 x weight in kilos) + (1.8 x height in cm) - (4.7 x age in years)

Men: BMR = 66 + (13.7 x weight in kilos) + (5 x height in cm) - (6.8 x age in years)

Credits: http://www.bmi-calculator.net/bmr-calculator/bmr-formula.php

Once you know your BMR, calculate it by one of the numbers from below based on your activity level:

Harris Benedict Formula

To determine your total daily calorie needs, multiply your BMR by the appropriate activity factor, as follows:

- If you are sedentary (little or no exercise) : Calorie-Calculation = BMR x 1.2
- If you are lightly active (light exercise/sports 1-3 days/week) : Calorie-Calculation = BMR x 1.375
- If you are moderatetely active (moderate exercise/sports 3-5 days/week) : Calorie-Calculation = BMR x 1.55
- If you are very active (hard exercise/sports 6-7 days a week) : Calorie-Calculation = BMR x 1.725
- If you are extra active (very hard exercise/sports & physical job or 2x training) : Calorie-Calculation = BMR x 1.9

Credits: http://www.bmi-calculator.net/bmr-calculator/harris-benedict-equation/

Once you have your TDEE, or caloric needs to maintain your current weight, a good rule of thumb is to set a deficit of roughly 200 calories. Why?

This is going to allow you to train harder and do more volume to encourage muscle growth while also allowing you to strip fat off slowly. Plus, a mild deficit like this won't hinder your recovery much.

If you are overweight, very overweight, or even obese, you'd be better off with a more aggressive deficit of 500-700 calories. You'll still build a good amount of muscle, but you'll also lose more fat.

Step #2: Eat enough protein

Keeping your protein intake high is going to ensure that you maintain a positive nitrogen balance despite being in a caloric deficit. Most of the research is in agreement that you need somewhere between 0.8 and 1.2 grams per pound of body weight.

Personally, I would err on the side of more protein rather than less. Not only is it very satiating (making it easy to eat fewer calories) but it has been shown to be beneficial in recomp studies (this, this, this).

Step #3: Lift weights

While I won't go as far as to suggest very high volumes during body recomposition (especially if you are a newbie), you still need to pass a certain threshold to see muscle growth. Additionally, you still need to make progress over time.

If you are a beginner, you can download my free program.

If you are more intermediate, my recommendations would be as follows:

- Aim to do 10 to 16 weekly working sets for most muscle groups except for your calves, biceps, triceps, and forearms. For these smaller muscles, do between 7 and 10 weekly sets.
- Aim for progressive overload. Whether you add more weight on the bar, do more repetitions with the same weight, do more sets with the same weight, or even just do the same number of sets and reps but with smoother form, you need to be seeing improvements on an ongoing basis.

Step #4: Sleep

A recent systematic review set out to examine all of the research on sleep interventions in athletes and identify which were the most effective for improving performance and recovery.

A secondary aim of the review was to outline actionable strategies for athletes. A total of 10 studies that covered a few criteria were included. Two of the criteria were:

1. The study had to implement a strategy aimed at improving both sleep and either performance, recovery, sleepiness, or fatigue.

2. The subjects needed to be competitive athletes of any level and be at least 18 years old.

Most of the participants in each study were between 18 and 24 years old. Seven of the ten studies included only men, two studies included only women, and one study had a mix of men and women.

- One study had the subjects (basketball players) increase their bedtime from ~7 to ~10 hours per night for 5-7 weeks. Actual sleep time increased from roughly 6.6 to 8.4 hours. Sprint times, free throw accuracy, reaction times, and subjective mood state all improved.
- In another study, the subjects (tennis players) were instructed to get at least 9 hours of sleep per night. Actual sleep time increased from 7.14 to 8.85 hours, roughly. Subjective ratings of sleepiness decreased and serving accuracy improved.
- Two studies had their subjects increase their sleep to 9-10+ hours per night. They found decent improvements in athletic performance. Also, subjective feelings of fatigue decreased.
- Four studies examined different sleep improvement strategies (e.g., no electronics 15-30 minutes before bed). Two studies examined the effects of napping on recovery.

The lesson here?

It's likely that the sleep recommendations for athletes are higher than those for the general population. Allowing yourself as much as 9-10 hours of sleep per night will likely improve your performance, cognitive function, body composition, and more.

Numerous other studies suggest that not sleeping enough has been shown to reduce testosterone, athletic performance, cognitive function, and even harm your body's ability to burn fat while dieting (study, study, study, study).

Step #4.5: Do some cardio (optional)

Cardio is excellent for your health, longevity, and endurance. Furthermore, cardio burns calories and allows you to eat more food while shedding fat. If you don't want to do it, that's fine too. But if you're doing it, keep two things in mind:

1. High impact cardio, such as running, causes damage to muscles, joints and soft tissue. When the damage becomes more than the body can handle and recover from, you can start feeling overtrained. For body recomposition, stress management is crucial.

2. The SAID (Specific Adaptations to Imposed Demands) principle can hinder your recomp efforts if you're not careful. Many studies have looked at concurrent training and how it affects the trainees' results in regards to aerobic and anaerobic adaptations.

Without fail, most find that combining cardio and lifting delivers smaller anaerobic (strength, power, hypertrophy) adaptations when compared to strict lifting protocols.

This meta-analysis from 2012 reviewed 21 studies and came to this conclusion:

*Our results indicate that interference effects of endurance training are a factor of the **modality**, **frequency**, and **duration** of the endurance training selected.*

Meaning, you need to be doing it in moderation to reap the benefits and avoid the drawbacks. A good rule I like to follow is to do no more than one hour of cardio a week. But I'm fairly active (I walk roughly 12k steps a day), and I lift 4-6 days a week.

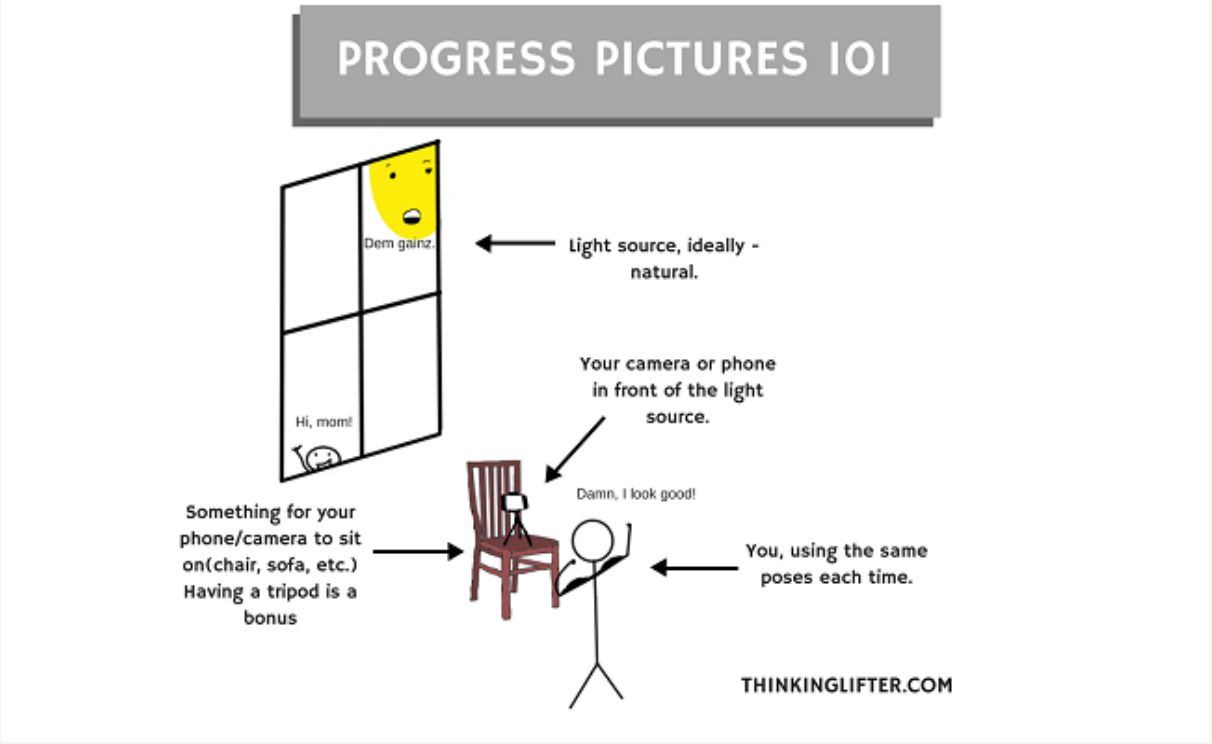
How to Track Progress During a Recomp

As a skinny fat beginner

Track your gym performance, visual changes, and take body measurements. The scale won't be a reliable source for you because you are likely going to gain muscle and lose fat at roughly the same ratio (e.g., for every pound of fat ***lost***, there could be a pound of lean mass ***gained***).

#1 Progress pictures

To make progress pictures useful, you need to take them under the same conditions every time and use the same poses.



#2 Gym performance

Whether you're using a workout log, an app, or something else, it's important to write down your workouts and track them over time. If your performance is improving over time, you can rest assured that your body composition will too.

You can also download a free beginner's program.

#3 Body measurements

Taking body measurements of your chest, arms, legs, and waist is a great way to see how progress is going. Ideally, your waist should go down while your arms chest and legs grow over time.

But even if a particular measurement doesn't change much over time, don't take it as a bad sign. Sometimes muscle replaces fat in a specific body part, making the size stay the same for a while.

Here's how to take your measurements.

As an overweight beginner

Here you are also going to rely on progress pictures, gym performance, and body measurements to gauge how far you've come. You should also track your body weight and aim to lose roughly 0.5 to 1% of it each week.

Track your weight daily, in the morning on an empty stomach and take the weekly average. Compare week to week and see how your weight changes over time.

If you're losing fat too slowly, you can increase the deficit. If you're losing too quickly, you can increase caloric intake a bit.

Also, don't forget to download your free beginner's program.

As an intermediate lifter

The goal here is to maintain roughly the same body weight while your visual appearance improves. Much like the overweight beginner, as an intermediate you'll also take advantage of:

- **The weight scale** - to make sure that you're not gaining or losing weight past the normal daily fluctuations.
- **Progress pictures** - under the same conditions using the same poses. Take them every 3-4 weeks and compare.

- **Body measurements** - much like the skinny fat and overweight beginner, you should also see a gradual reduction in waist measurements while your chest, legs, and arms improve over time. But again, we all store and lose fat differently so don't take these measurements as hard evidence. Lean more on the side of visual changes and gym progress.
- **Gym performance** - keep track of your workouts and make sure that you're progressively getting stronger.

Supplements?

Creatine and protein powder. Both are optional.

Yes, I am serious.

Phil, supplements!

Sigh. Fine.

1. Creatine

Creatine monohydrate is one of a few supplements that I recommend for lifters. Here's why:

- It's the best-researched product on the market, with proven efficacy.
- It doesn't present many side-effects, especially when taken in recommended doses.
- It's cheap. The average serving cost of 5g is no more than 10-20 cents.

2. Whey Protein

Protein powder is the best and most inexpensive product you could invest in. It comes in a plain form, so you have to do most of the work to make snacks, but the average cost per serving is 60-70 cents. For 22-25 grams of pure protein, that's a good deal.

If you don't want to (or can't) get enough dietary protein from food alone, then whey protein is an invaluable investment in your gains.

3. Caffeine

Caffeine can help speed up fat loss by increasing your body's daily energy expenditure. It has also proven itself worthy by:

- Increasing alertness and energy levels

- Increasing muscular strength and endurance
- Decreasing appetite

From what we know about caffeine, it seems like a well-rounded, useful substance to take.

But, keep in mind that your body can get used to it over time and build a tolerance. That is why I recommend laying off it for a week or two every few months.

A Better Way to Go About Getting More Jacked and Less Fat

I mentioned earlier in the guide that I don't recommend body recomposition for intermediates and advanced trainees because there are better ways to invest your time.

Have dedicated gaining periods

Earlier in this guide, I briefly mentioned that to optimize muscle growth, you need a small caloric surplus. I won't dwell much on the topic here. You can read my lean bulking and training for muscle growth guides.

Have dedicated deficit periods

Again, I won't dwell much on the point. Once you've gained some weight and you're in the 15-18% body fat range, put yourself in a deficit, get down to 10-13% body fat and start gaining again. This study I referenced above showed that losing 0.7% of body weight per week resulted in increases of 1 RM strength and maintenance of lean body mass.

Shorter Bulks and More Frequent Mini Cuts

If you prefer to stay on the lean side year round while still making good gains in the gym, you can do shorter bulking cycles (2-4 months) followed by 2-6 weeks of mini-cutting to shed the excess fat.

Conclusion

So, there we are. Body recomposition is indeed possible and even expected in the short-term. Beginners and detrained lifters can surely take advantage of it.

But, for the average intermediate or advanced lifter, spending time in dedicated bulking (where weight is gained slowly to avoid too much fat) and cutting periods (where weight is lost gradually to minimize muscle loss) would be time better spent.

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