

MASS X-celeration

New X-Rep Training Insights From *IM's* Resident X-Men | by **Butch Lebowitz** Photography by **Michael Neveux**

Ten more pounds of hardcore muscle mass? Yes, please. Two helpings. Bring it on—now! Any bodybuilder knows that 10 solid pounds of extra muscle will transform his entire physique and mystique—you know you'd look much bigger and harder and gain babe-magnet confidence out the wazoo. Your shirts would get tight, and your strength would zoom out of sight. Case in point: Jonathan Lawson and Steve Holman, authors of *IM's* Train, Eat, Grow series, recently packed on about 10 pounds of extra beef—and that was *after* the amazing gains they made during their X-Rep experiment in '04.

Model: Jonathan Lawson





Model: Jonathan Lawson

Stretch overload is special. One animal study produced a 300-percent-plus mass increase after a month of it.

After 40-plus years of combined training experience and a recent surge in size and strength, they made another muscular quantum leap. Usually, impressive gains like

that don't keep coming after so many years of week-in, week-out training—unless you start using drugs. That's why I'm convinced that

these dudes are onto some new muscle-training mojo. You've already heard the buzz and seen their before and after photos, unless you've been living in a cave somewhere—or without a computer, which is almost like living in a cave.

I was floored by their '04 photos. The changes they made in one month and my often ugly skepticism demanded that I interview Lawson about exactly what went down. The result was "The X Factor," which appeared in the

February and March '05 issues. [You can read the two-part interview at www.X-Rep.com; go to the X-Q&A section.] He was honest, interesting and pretty big, so, needless to say, I was jealous as hell. He persuaded me to put the X to the test. Results: I quickly packed on about five pounds of new muscle—and now I want more.

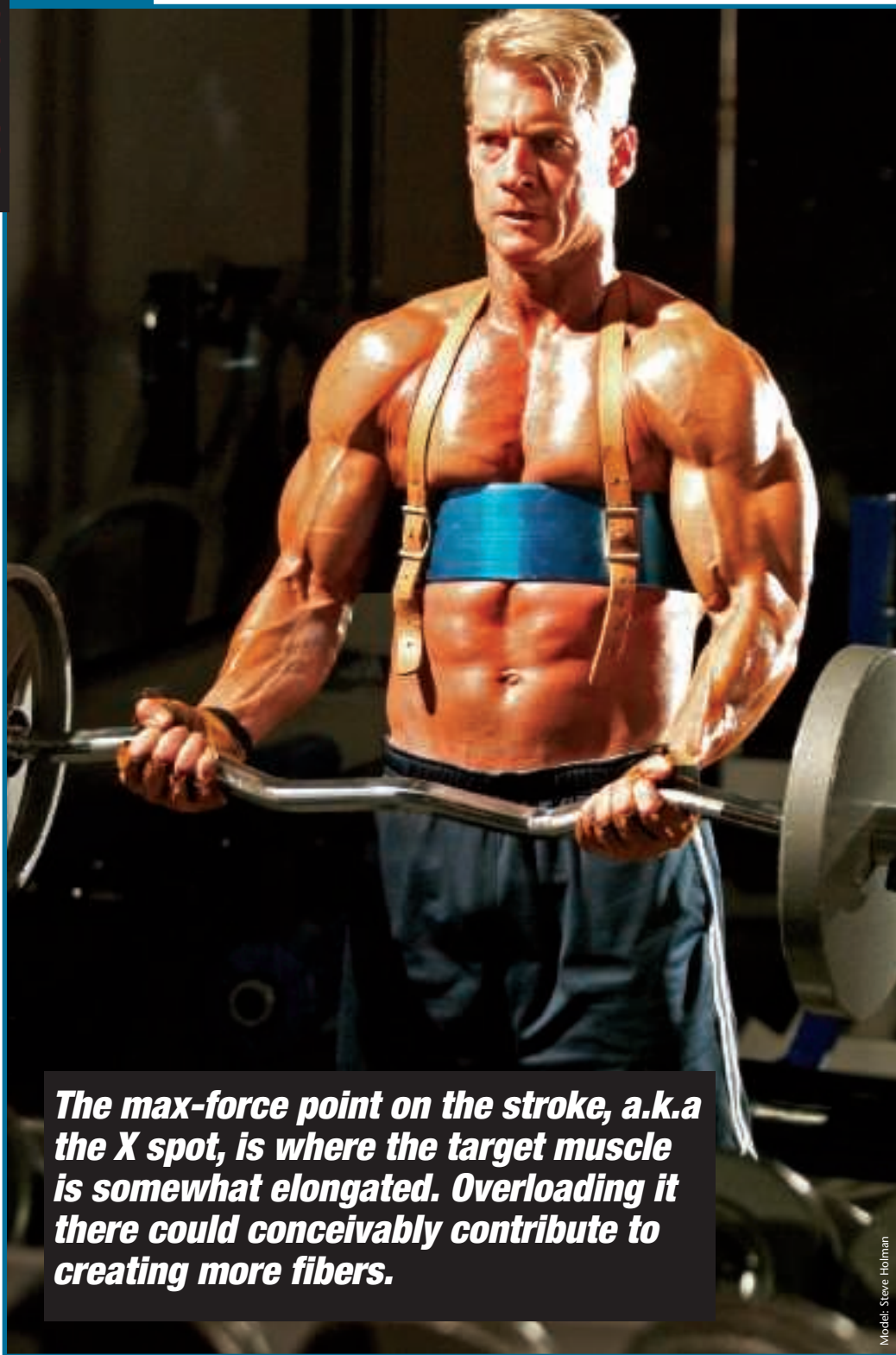
That's why I'm back in the X-Men's faces, this time because I saw their most recent photos at BeyondX-Rep.com. The sons of #@%!!s are bigger and just as ripped as in '04. They say it's all due to new X-Rep techniques and refinements of the original concept, no drugs involved. I look at those photos and go, "Damn, imagine what they'd look like on!" Let's get to the bottom of this mass X-celeration madness—because we all want—make that *need*—more muscle. Bring it on!

IM: First, give us a quick run-down of X Reps. What are they and why do they work?

JL: You do a normal set to nervous (continued on page 204)



Model: Jonathan Lawson



Model: Steve Holman

The max-force point on the stroke, a.k.a the X spot, is where the target muscle is somewhat elongated. Overloading it there could conceivably contribute to creating more fibers.

twitch fibers right where the muscle can fire most effectively. In fact, we believe that if you don't do X-Rep partials at the end, you're wasting the set to a degree. Well, maybe not wasting, but you're not getting complete muscle stimulation because you've stopped short of hitting as many fibers as possible in that one set.

X Reps at the end of a set give you more continuous-tension time plus semistretched-point overload. The max-force point on the stroke, a.k.a. the X spot, is where the target muscle is somewhat elongated—near the bottom of an incline press or chinup, for instance—so there's also the possibility of hyperplasia, or fiber splitting, occurring when you severely overload it there. So X Reps could conceivably contribute to creating more fibers, but that's still controversial. Nevertheless, we know stretch overload does something special. One animal study produced a 300-percent-plus mass increase after a month of it. That makes us think not only that X Reps have a lot of muscle-building power but also that X-Rep-only

(continued from page 200) system exhaustion, and when you can't get any more full reps, you move the weight to the max-force point, where the target muscle can generate the most power, and do partial

reps. That spot is usually down near the turnaround.

SH: That works because at the end of a set you're in the ideal fast-twitch time zone—so it only makes sense to continue activating fast-

sets on stretch-position exercises, like flies for pecs, may have tremendous mass-building potential.

IM: Three hundred percent? Damn, I'd like to triple the size of my arms. That'd pop some

eyeballs. Oh, but you forgot to mention that X Reps hurt like hell. Is it worth it?

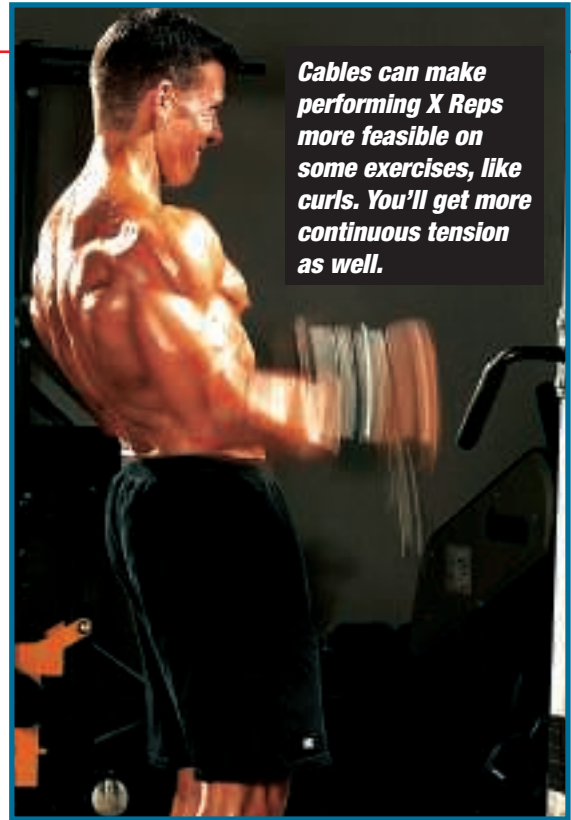
SH: That's a good point because that hurt, or burn, is tied to anabolic hormone release—another reason X Reps are so effective at building muscle. Most trainees rarely get a burn on heavy compound exercises like bench presses. Doing X Reps at the end of a set makes the burn almost automatic, which means you should get a burst of anabolic hormones on top of all the other good mass-building synergy.

If you think about it, using X Reps at the end of a set is kind of like automatic preexhaustion. When your triceps fail on bench presses, for example, your chest still has power left near the bottom of the stroke, so you move to the pecs' max-force point and keep them firing through

a short range.

IM: On some exercises I don't have anything left for X Reps. At the end of decline presses I can't budge the bar out of the bottom. What's up with that? Should I rack it and grab some lighter dumbbells for X Reps?

SH: X Reps are more difficult for some people on certain exercises. It's often a neuromuscular deficiency. We usually suggest substituting a static hold at the max-force point (X spot) to develop more nerve



Cables can make performing X Reps more feasible on some exercises, like curls. You'll get more continuous tension as well.

Model: Jonathan Lawson

The hurt, or burn, is tied to anabolic hormone release. Most trainees rarely get a burn on heavy compound exercises, but doing X Reps at the end makes the burn almost automatic.



We train on our lunch hour, so we have to condense all of the muscle-building facets—cover all of the anaerobic bases—in that short time.

Models: Jonathan Lawson and Steve Holman

force. Even better, have your training partner help you with X Reps—like short, pulsing forced reps, only moving through the X range. Don't do full-range forced reps. Those are significantly inferior.

Your idea of going to lighter dumbbells is a good variation, but you

lose the continuous tension that's one of the key benefits of immediately moving to X Reps at exhaustion. We believe that tension times of about 30 seconds on the majority of sets produce the most effective muscle-building stimulus.

Another option is to do a heavy set to exhaustion, rest, then do another in X-Rep-only style. Do about 12 to 15 X Reps so your time under tension is long enough to stimulate the most growth. That's a great max-force-point-overload set.

Q: You mentioned forced reps. You don't believe those are very effective, right?

JL: X Reps are better than full-range forced reps because with Xes you extend the set at only the key area on the exercise's stroke. You stress the exact spot that enables



When it comes to muscle fibers, you want to hit as many types as possible to max out growth and pump up every aspect of those fibers. It's not only about building the pure fast-twitch fibers.

Model: Jonathan Lawson

the target muscle to generate the most force and fiber activation. With forced reps, on the other hand, you tend to writhe around and strain as you inch your way through full-range reps with help from your training partner. Pretty inefficient; lots of wasted effort.

SH: Yes, slow-motion full-range forced reps waste a lot of nervous energy as you push through weak areas of the stroke with imprecise unloading—that is, pushing or pulling from your partner. That's why trainees who use a lot of forced reps tend to get tremors after training—they overstress the nervous system. A recent study confirms that. There's more on that study in the Q&A section at our Web site.

Research suggests that a big cause of overtraining is excessive nervous system stress, and full-range forced

reps do a lot to increase that probability—much more than X Reps—without much mass stimulation in return. On the other hand, X Reps' short stroke at the max-force point is a superior way to extend a set for a maximum growth response with less nervous system drain.

IM: Time under tension makes sense, but you said that for best muscle gains, sets should last about 30 seconds. I'm a low-rep power guy, and I made good gains adding them to my low-rep sets. How do you explain that?

JL: Well, heavier weights and lower reps will produce growth in a few types of fast-twitch fibers, but there are more than a few types. Some scientists have said that there are anywhere from five to nine different fast-twitch-fiber types, some

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Jay Cutler does partial reps near the max-force point between groups of regular reps or between reps.

Model: Jay Cutler \ "Jay Cutler Ripped to Shreds" © 2005 Mitsuru Okabe Co.

being slightly more endurance oriented than others.

SH: And that means a muscle's fiber makeup can determine whether it responds well to a specific rep range. Let's say you have more pure fast-twitch fibers. You can grow with lower reps—up to a point. That may be your case, Butch, because you said you gained more than five pounds using X Reps with lower-rep work. Maybe they helped you get over the hump and involve more of your pure fast-twitch fibers.

Then again, you've been training with low reps for years, so those particular fibers may be close to maxed out. A better guess is that by adding X Reps, you moved out of the power-building range and got closer to the muscle-building one. In other words, you quickly added mass by involving more fibers, maybe different ones, *and* building some endurance constituents in the muscle cells—like mitochondria.

Remember, when it comes to muscle fibers, you want to hit as

many types as possible to max out growth *and* pump up every aspect of those fibers. It's not only about building the pure fast-twitch fibers, as some high-intensity advocates seem to believe. An all-out single may get at a group of the pure fast-twitchers, but that's about it. It just makes sense that the more fiber types you can build and the more ancillary growth factors you can increase, like capillaries, the bigger your muscles will be.

That's why the best overall range for building muscle for most bodybuilders is around 10 reps. At three seconds a rep, that totals 30 seconds per set, which appears to be ideal for activating the size principle domino effect—that is, moving from low-threshold motor units to mediums to highs at the end of a set. Ten-rep sets hit a variety of fibers while also increasing the size of the energy-producing structures, like capillaries, around the fibers, which adds to growth. The last few reps of a 10-rep set are also when you're

maxing out fast-twitch recruitment. Add X Reps, and you've got something very powerful from a lot of different directions when it comes to adding muscle size.

Then there's the fiber-transformation factor. A lot of studies show that pure fast-twitchers, type 2Bs, can evolve into fast-twitch fibers with more endurance, type 2As. Because those fibers do double duty, they have the capacity for more growth. If you always do low reps, you don't get that morphing effect. Muscle biopsies show that the biggest bodybuilders have an enormous number of type 2As, probably because of longer tension times, which results in fiber morphing.

JL: And that morphing may be a longer process for some muscles. You use your quads and calves a lot for walking, so they may already have loads of 2As. Longer tension times will cause immediate size effects in those bodyparts. For other muscles, like chest, there may be a lag time—it may take months for

the fiber morphing to take place: So you just have to stick with it for the transformation to happen and then growth to occur.

IM: So you're saying that if I want to get bigger, I shouldn't do low reps?!

SH: Low reps are okay, but they're considered more suited to building strength than size—you build tendons, ligaments, neuromuscular efficiency and pure fast-twitch fibers. So it depends on what you're after. If you're after strength with a size



Model: Ronnie Coleman \ "Cost of Redemption" © 2004 Mitsuru Okabe Co.

Even Ronnie Coleman uses longer tension times on most of his exercises. He does 12 reps on most moves, using partials that include the max-force point. His reps on most exercises are like half or three-quarter reps.



Model: Ronnie Coleman \ "Cost of Redemption" © 2004 Mitsuru Okabe Co.

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Many of the top pros use partial-range movements, never going to lockout. That's to get the powerful size-building benefits of continuous tension.

Model: Jay Cutler

side effect, do more lower-rep sets, with only a few longer-tension-time sets. That's what strength coaches, like Bill Starr, advocate.

We're after the flip side—maximum muscle size with a strength side effect. So we do low reps on a set or two, but even then we usually add X Reps or at least a static

hold at the X spot. Or sometimes we do those lower-rep sets as part of a drop set or superset. We've become very big believers in extending tension times for recruiting various fiber types and morphing others into ones with more size potential as well as for building the energy-producing structures in muscle cells

that add up to more mass.

In other words, we try to make most of our sets last for at least 10 reps. Have you ever heard of a top bodybuilder getting big while doing only singles? Not gonna happen. The muscle-building effects of that are too limited. And not just because you hit only a select



Putting an X Rep before each successive standard rep in a set is our new Double-X-Overload technique. It helped us get bigger and better in '05.

Models: Jonathan Lawson and Steve Holman

group of pure fast-twitch fibers. There's also the problem of nervous system failure, one of your body's defense mechanisms, which we ex-

plain at our Web site.

JL: By the way, even Ronnie Coleman and Jay Cutler use that longer time under tension on most of their

exercises. Coleman does 12 reps on most moves, using partials, or exaggerated X Reps, and Cutler does fewer reps, but he does X Reps in the semistretched and stretched position between reps or groups of reps to extend the tension time.

IM: That's one of your new X-Rep techniques, correct? You do X Reps between reps—and then sometimes you sadistic bastards add X Reps on top of that, right?

SH: Yes, putting an X Rep before each successive standard rep throughout a set is the Double-X-Overload technique. We noticed Ronnie Coleman doing it on shrugs on his "Redemption" DVD. He doesn't do a lot of sets for traps, but they're one of his most impressive bodyparts. We think a lot of that development is due to the extra stretch overload he gets with that technique. Remember the stretch/fiber-splitting connection?

Then there's Cutler, who uses the DXO technique on almost all of his exercises. As Jonathan said, he

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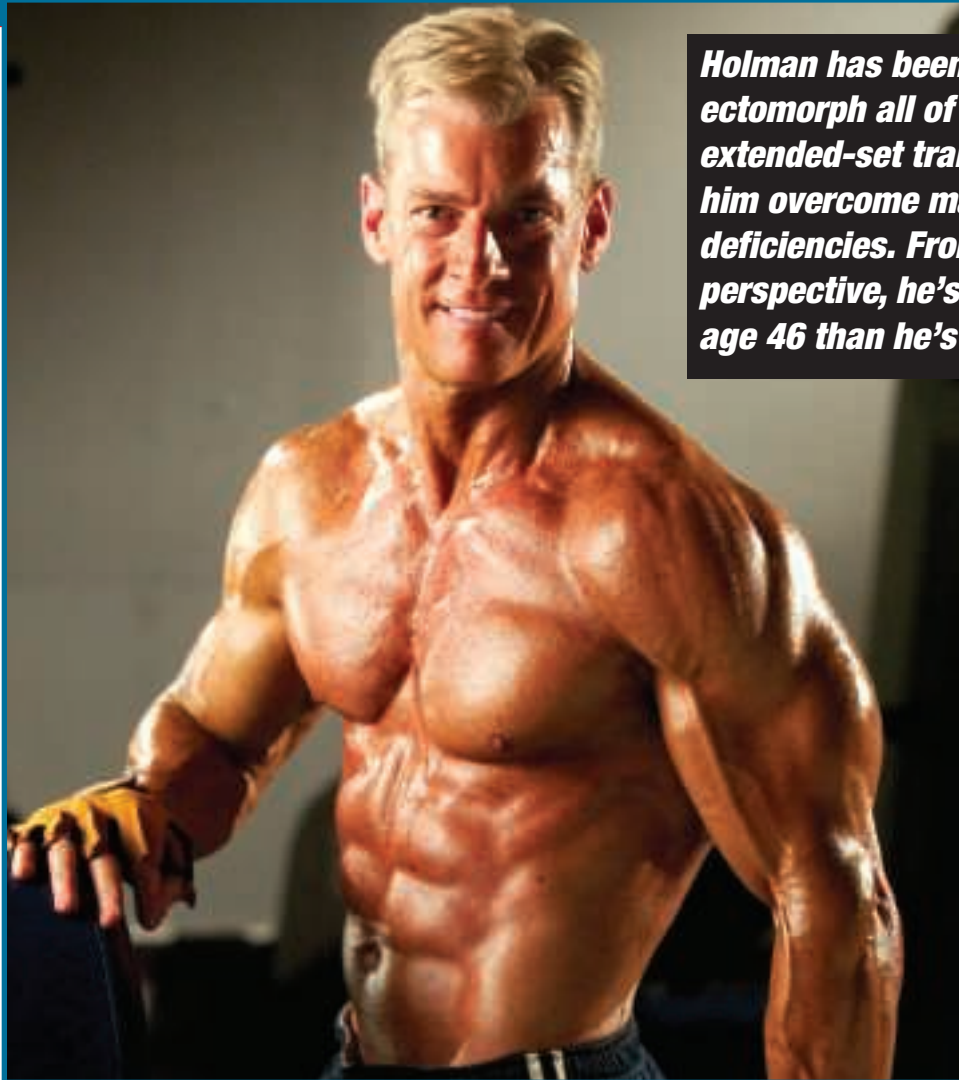
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Holman has been a thin ectomorph all of his life, but extended-set training has helped him overcome many of his genetic deficiencies. From a bodybuilding perspective, he's better now at age 46 than he's ever been.

Because you'll have to reduce the poundage, you could use that triple-X tactic as a back-off set. Do it after a heavy set or two for more tension time and semistretched-point loading. Frequently varying your tactics like that is very important for continuous muscle growth.

IM: Earlier you mentioned X-Rep-only sets. In the past you said it was better to use X Reps at the end of a regular set. Have you changed your minds?

JL: I said that in our first interview because of what we'd discovered about the size principle of fiber recruitment.

Model: Steve Holman

does X Reps between regular reps or between groups of reps. His "Ripped to Shreds" DVD has a lot of that on it—lots of stretch and semistretch overload.

IM: So maybe that helped him get past some of his genetic problems. All that extra stretch overload caused his muscle fibers to morph and split, giving him a lot more potential for hugeness.

JL: Well, as we keep mentioning, stretch overload has been linked to hyperplasia, so that's not a far-out possibility. Or maybe it's just a great stimulus for that fiber morphing we're talking about, transforming fibers into ones with more growth potential.

Anyway, we really like the DXO technique and think it's responsible for a lot of our recent gains. Maybe

we're splitting fibers—who knows? I'm not willing to get painful muscle biopsies to find out. All I know is, it works.

DXO is one of my favorite X-hybrid techniques. You can see that it dominates our X-Blog training journal. We use it at every workout—on compound and isolation exercises alike. You just X at the max-force point between reps—every time—and you can really feel the target muscle firing. Then we tack on X Reps after that. You'll feel it, believe me.

IM: What if I do three or four X Reps between reps? Will I get even better mass gains?

SH: Try it. We're all about experimenting with different X-hybrid techniques. The ones we've found that work best for us are in our *Beyond X-Rep Muscle Building* e-book.

When you do a set of, say, 10 reps, the low-threshold motor units fire first, then the mediums, then the highs during the last few reps. So when the going gets tough, the fast-twitch fibers get growing—and morphing. As Steve said, it's like a domino effect.

That can still happen on an X-Rep-only set that includes about 12 X Reps—with that many partials you'll get a pretty good anabolic tension time. But when you asked about it in our first interview, you suggested using very heavy weight and only doing five or six X Reps. In general, that's not as good for growth stimulation as it is for strength.

SH: Also, different groups of muscle fibers fire throughout the stroke. So if you don't do the full rep, you could miss *(continued on page 216)*

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hard if you’re not paying attention to all the tools needed. Bodybuilding is about training, nutrition, supplements and cardio. You pack your gym bag and head off to the gym, blast through your workout, giving it all you’ve got. Then you hit your cardio. And of course... you need to push yourself to the limit. No getting around that. You can’t expect to make progress without hitting it full throttle.

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During this key period of time, you can trigger muscle growth and fat loss or you can “fall victim” to the cold-hearted attacks of catabolism and actually lose muscle as a result of your workout. That’s right! If you fail to provide the right nutrients during this critical time period, it will wreak havoc on your muscle growth! It’s like doing 65 MPH in a Mercedes and then throwing it into reverse!

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duced to muscles also increases muscle building rates by 150%. When you take in amino acids immediately after a heavy workout, you can stimulate protein synthesis by 200%. Still with me? That’s part two.

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Combined, this strategy produces the highest protein synthesis rates—up to 400%. That’s more than any single **metabolic event**. The biggest mistake many bodybuilders make is scarfing down a meal at the local eatery or pulling out their prepacked meal—chicken breasts, baked potato or rice and vegetables after a workout. This is an approach doomed to fail because by the time this meal digests, you’ve missed out on optimizing the “anabolic window, or the nutritional window of growth”

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(continued from page 212) some fibers. Then again, that varies with different exercises. On bench presses, for example, the pecs get very little work toward the top lockout, so stopping before lockout is a good idea. Ronnie Coleman does only half reps, pushing the bar from near his chest to about halfway up, which is right where the pecs start to lose tension. It's the same with squats. He bottoms out and then only comes just above the halfway point before heading back down.

Full-range work is more important on exercises where the resistance is on the target muscle throughout the stroke, like leg extensions, but even then holding the contracted position may reduce tension on the target because of a lot of tendon and ligament support in that position. Both Coleman and Cutler rarely squeeze the target muscle on isolation exercises. Watch their training DVDs. They use a pistonlike action.

I used to recommend that trainees hold the contracted position, but I'm starting to think that's not such a good idea, unless you want to enhance your neuromuscular efficiency for more strength. The contracted position is actually the spot on the stroke where the target muscle can't fire very effectively because the fibers bunch up.

IM: Okay, you're hitting me with a lot of info. Let me get this straight: The continuous-tension thing appears to be very important for size. And you said that 30 seconds of tension time is best. But some bodyparts respond better to higher reps, like quads, calves and forearms. What's up with that?

SH: I think that has to do with frequent use and fiber adaptation. The bodyparts you mention all get used a lot for walking and gripping, and that type of work forces many fast-twitch fibers to transform into more endurance-oriented types. In

other words, they're still fast-twitch; they just have more of an endurance component than pure fast-twitch fibers. With so many more endurance-oriented fibers, you need somewhat higher reps to stress the muscles enough for growth. Tension times that are longer attack those more resilient fibers. Lower reps work the pure-power fibers more, and those bodyparts you mentioned, at least in most people, contain a minority of the pure fiber types—due to all the endurance activity put on those muscles throughout your life.

IM: Hmm, so I guess putting X Reps on the end of 10-rep set of leg extensions generates a lot of growth-stimulation power, maybe more than on upper-body exercises?

JL: Due to the nature of the quad fibers, I guess you could say that. More endurance-oriented fast-twitch fibers are one reason we think the Double-X Overload



We only use forced reps on rare occasions, and when we do, it's usually on only the last rep we can't complete. X Reps are much better for extending a set than forced reps.

Models: Jonathan Lawson and Steve Holman



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Model: Jay Cutler. © 2005 Mitsuru Okabe Co.

works so well for building leg size. If you do 10 reps, you're really doing about 15 when you add the X Reps between standard reps. And then, if you're a "sadistic bastard" and end with a series of X Reps, you extend the set even more. You don't need a lot of sets to get growth when you use that kind of efficient intensity.

IM: Efficient intensity. I think that's a great description for what you guys are all about. "Learn more about efficient intensity at SadisticBastard.com." I like it. Along that line, which is most important for building more muscle, max-force-point overload, continuous tension or stretch overload?

SH: They all contribute, but the size-building potential of each may be different for each person. So, if you have a lot of endurance-oriented muscles, longer continuous-tension times will probably do more for you than max-force-point overload. On the other hand, if you have a lot of power-oriented fast-twitch fibers, max-force-point overload may get you more size—but you shouldn't neglect either.

In fact, X Reps at the end of a set extend the tension time *and* give you max-force-point overload, which makes them a very efficient mass-building technique. Plus, it appears that both of those factors help produce that fiber morphing we've been talking about. Oh, and they provide some stretch overload too. Again, stretch overload may increase fiber number through hyperplasia or transformation, and it also increases anabolic hormones.

All of those factors work together in a synergistic fashion, and standard end-of-set X Reps can help you cover the bases. Even so, you enhance the benefits by using a variety of X-hybrid techniques, like X Fade, Double-X Overload and X-centric training. Each has a different effect on those muscle-growth factors. Stirring them into the mix provides variety that is critical for growth, and I think that's a big part of how we made even more gains in '05 after our impressive improvements in '04. As we say at the Web site, to up muscle gains, the stimulus has gotta change! But you also have to be sure you're covering all the

muscle-building bases, which includes hitting a variety of fiber types and hypertrophying the endurance components of the muscle cells. That can pump up those endurance-oriented fast-twitchers and morph others into fibers that have more growth capacity.

Have you ever heard of a top bodybuilder getting big doing only singles? Not gonna happen. The muscle-building effects of that are too limited.

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Model: Ronnie Coleman

A lot of studies show that pure fast-twitchers, type 2Bs, can evolve into fibers with more endurance, type 2As, when exposed to longer tension times. Because 2A fibers do double duty, they have the capacity for more growth. Muscle biopsies show that the biggest bodybuilders have an enormous number of type 2As, probably because of longer tension times, which results in fiber morphing.

JL: One of our theories is that that's the reason gains are so slow for so many trainees—they don't cover all of those muscle-building bases or they focus on only one. And if that single focus is on something they don't have an abundance of, their gains will really be slow. The best example is the thin, hardgainer type. Ectomorphs generally have more endurance-oriented fibers. If all they do are low-rep sets, their gains are going to be painfully slow or nonexistent because they don't

have a lot of pure-fast-twitch fibers. It's like a five-foot-tall basketball player. If all he does is try to slam-dunk it, he'll probably never make a basket—at least not for a heck of a long time. That's the long, hard road. He has to look for ways to get the ball through the hoop that take his genetics into consideration.

The only way a hardgainer may be able to make low reps build muscle at a decent clip is with supersets, drop sets and/or X Reps and X-hybrid techniques that produce an extended-tension-time effect. That can involve a variety of fiber types and build the endurance components of the muscle cells he's got. Longer continuous-tension sets are very important for hardgainers, but as we said, all bodybuilders should also use them to help cover all the bases, or facets, of muscle growth.

IM: But shouldn't a genetic freak like Ronnie Coleman get

huge with low reps? He must have an outrageous number of pure fast-twitch fibers. Why does he go for extended tension times on a lot of his sets?

SH: He has a lot of every kind of fast-twitch fiber. But going for extended tension times on most of his sets is the most effective way to cover all of the bodybuilding bases. We explained the size principle of fiber recruitment and how using a medium-rep range involves a lot of different fiber types. Doing medium reps also builds the endurance constituents of and around muscle cells, causes key fiber morphing and produces anabolic hormone surges more effectively. Coleman knows that from experience. That medium-rep range is simply more efficient at building overall muscle size on many different levels—with a strength side effect, as we explained earlier. And he's gotten a pretty

incredible strength side effect.

IM: Yeah, he's one strong dude! How about the number of sets? You guys are definitely not volume-training boosters. Don't you think you'd get bigger and better if you used more sets the way almost all of the champs do?

JL: We don't use anabolic steroids, for one thing. Those drugs boost recovery and allow the users to be successful with a lot more volume. Overtraining isn't really a worry for steroid users; it is for us.

But the biggest reason we don't use more sets is, we just don't have time. We have to train on our lunch hour, so we have to condense our workouts into that time—and it's impossible for us to train on the weekends. We have to make training part of our workday.

SH: That's why we're so into all the intricate details of building mus-



Why do we keep talking about X Reps and the X-hybrid techniques? Because they work—and we continue to discover reasons why. The X-Rep concept has helped us make more gains the past two years than in the previous seven.

Models: Jonathan Lawson and Steve Holman



Coleman uses the DXO technique on his behind-the-back shrugs—and his traps are gigantic.

Model: Ronnie Coleman \ "Cost of Redemption" © 2004 Mitsuru Okabe Co.

cle. Sure, you can use straight sets and vary the rep ranges, doing four or five haphazard sets per exercise, and get results without the pain of training to nervous system exhaustion or using X Reps. But you have to have time to train for two to three hours six days a week. We don't.

We have to get it done in about an hour, so that means cramming all of the muscle-building factors into a few sets. As Jonathan said, efficient intensity. We try to hit as many fiber types as possible, build the endurance structures of the muscle cells, rev up an anabolic hormone surge and maybe even get some hyperplasia in as few sets as possible. We rarely do more than two work sets per exercise, but X Reps and X-hybrid techniques, along with drop sets and supersets, get the muscle-building job done more quickly.

IM: And I've been reading in your e-zine that you think it's possible to get all the mass-building effects for awesome gains just doing two sets of one exercise per bodypart. True?

SH: Well, we haven't tried it, but yes, in theory we think it's possible

to get *most* of the requirements for muscle growth using a few sets of one ultimate exercise per muscle. For example, if you use decline presses for your chest in nonlock style to create continuous tension, you could do your first set for 10 reps, with four X Reps tacked onto the end. On your second set you could add weight and do a lower-rep set of, say, six or seven, but do a drop set. Reduce the weight enough so you can use the Double-X-Overload technique, doing an X Rep between full reps, on the second phase of the drop. Do seven of those.

Now you've activated the size principle of fiber recruitment and attacked a variety of rep ranges, and, as a result, you've hit many types of muscle fibers. You've also achieved continuous tension in the proper growth time zone. Plus, you've pumped and burned the muscle for anabolic hormone action and hammered it with max-force-point overload, which may trigger fiber splitting.

JL: That last one is a stretch—pun intended. Fiber splitting is tied to stretch overload in the research,

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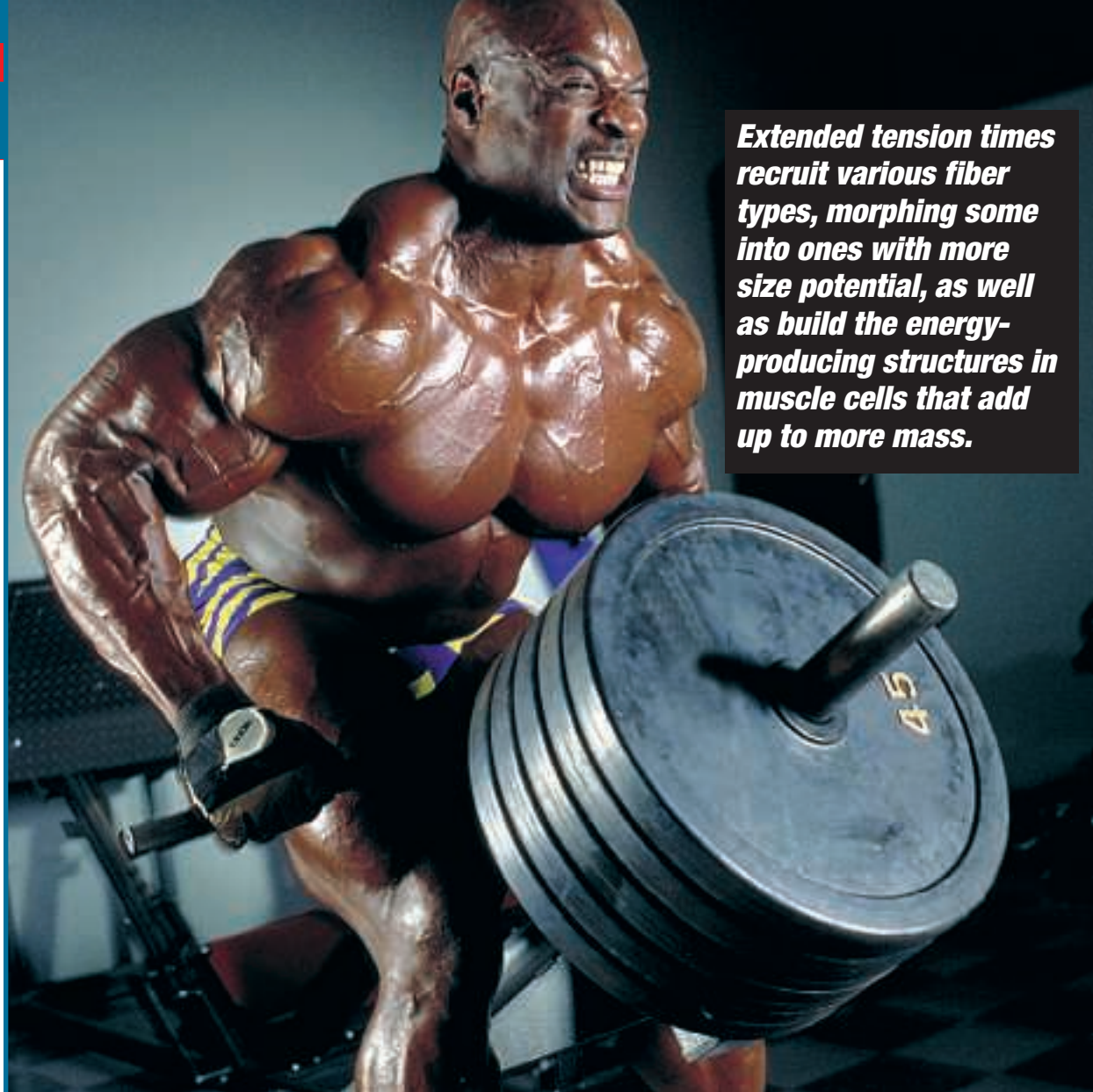
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Model: Ronnie Coleman

Extended tension times recruit various fiber types, morphing some into ones with more size potential, as well as build the energy-producing structures in muscle cells that add up to more mass.

but we're not sure if *semistretched*-point overload, which isn't as severe as full stretch, is enough to make it happen. That's one reason we're still including stretch-position exercises, like flies for pecs, in our routines. So we still follow the Positions-of-Flexion protocol, one way or another. And we also include contracted-position isolation exercises to get more occlusion, or blood-flow blockage. Right now we do stretch exercises at one workout and contracted exercises at the next. But because we can get continuous-tension effects on our compound exercises, we're beginning to think that stretch-position exercises are more important than the contracted-position ones.

IM: Yeah, you said earlier that X-Rep-only sets on stretch exercises may make for some killer mass moves. Sounds pretty

intense, but that's probably the reason they work, right?

SH: If hyperplasia is a reality, then we think that type of severe stretch trauma is the best way to force it to happen. Or maybe it's just good at triggering the fiber-morphing phenomenon. It definitely does good things for muscle growth. We've seen impressive results, for example, doing X-Rep-only sets on stiff-legged deadlifts—12 to 15 X Reps. Talk about hammering the hamstrings! That can be dangerous, though, because of the amount of weight you use in such a precarious position. The Double-X-Overload technique also has fiber-splitting and/or -morphing potential because you double up on stretch-position hits during a set and because the weight is a little lighter and easier to control.

IM: Man, really killer info. You guys have given me lots of new ideas to try in my workouts—but I'm still going to do low reps.

SH: That's fine, but try to get some extended tension times in there too with extra max-force-point overload. I guarantee your mass will increase again.

JL: And you get to be a sadistic bastard like us.

IM: Correction: a sadistic *huge* bastard. I'm in!

Editor's note: For more on X Reps, X-hybrid techniques and the research behind efficient muscle building, visit www.X-Rep.com. For more on Positions-of-Flexion mass training, see pages 82 and 183.

IM

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