

What are the Benefits of Nautilus and MedX Equipment Modification for your Business?

Full range of motion: good or bad?

Full range of motion can either be one of these concepts: the full range of motion of one *muscle* or the full range of motion of an *exercise*.

The first concept is basically not realistic. Most muscle and joint functions, especially muscles that cross two joints, require two different joint actions at the same time. Thus, moving into a position and so forth is not possible in one single movement.

Now let's take the concept of full range of motion of any one particular exercise. Well, that depends on the machine or the exercise that you're doing and whether it is safe to do that.

Moving into a stretched position of any particular muscle is safe but getting into extreme stretched positions can be harmful for the joints and the connective tissues. Connective tissues are not designed to be stretched because they are not elastic so overstretching them may cause more harm than good.

This leads us to the idea of pre-stretches which is moving into the stretch position of a particular exercise and then a quick motion letting it go into an even extreme stretch and then immediately follow that by a strong contraction. Nautilus believed that doing pre-stretches would create neurological stimulus resulting in stronger contractions.

Doing pre-stretches is really not advisable because of the same reasons mentioned regarding overstretching the joint.

In a nutshell, the emphasis on full range of motion is not advisable if you're going into extreme stretches and stretching ligaments and joint structures. But once you've established the safe range of motion then training through that range of motion is really beneficial for strength development.

Benefits of Nautilus and MedX modification

Exercise machines like Nautilus and MedX are excellent for targeting particular muscles and providing safe/efficient workouts. Although in its stock format these machines are great, a few modifications might be helpful in giving our clients the best workout experience.

So, whether you own one of these equipment or planning to buy one, here are some modification ideas for you to deliver high quality workouts for your clients.

Fused movement arm, redesigned cam profile, handles

A specific example for this type of modification is the classic Nautilus Rowing Torso. Locking the movement arms together allows for that unison of movements so when a client performs an exercise, they are no longer independent. Also, some modifications in the handles will help keep the arms much more stabilized.

There's also been a redesigned cam profile. There's been low friction bearings throughout the machine and all the various rotating axis points have been converted to Kevlar instead of chains and sprockets

Adjustable Chest Pad

The classic Nautilus machines do not have adjustable pads, so the traditional way is stuffing pads in front of your chest and holding yourself in a position. Having an adjustable chest pad allows clients to position effectively and be stabilized. It reinforces correct form, thus enabling clients to perform the exercise well.

Customized Paint Job

Different machines come in different colors so another upgrade in terms of aesthetics is repainting your machines. You can pick a customized color that is in line with your brand.

This special paint job is an additional cost but it's essential when it comes to brand congruency.

Replace Bronze Bushings with Teflon Bushings

The problem with bronze bushings is there is a relatively high amount of friction, it secretes oil that collects dirt and dust, and when they start to break down, they produce piles of metal shavings.

You can replace the bronze bushings in your MedX Machines with Teflon bushings. It's one of the lowest friction materials you can get. Also, PTFE bushings doesn't need lubrication and they don't break down with piles of metal shavings. Plus, they are relatively cheap, roughly \$50 or \$60 to buy two bushings.

Replace bronze bushings with heavy duty roller bearings

Having a heavy-duty machine like the Nautilus Compound Leg Press requires materials that can handle heavy loads. You can't use Teflon bushings because it's made of plastic. Again, the issue with bronze bushings is it produces a lot of friction. In this case, your machinist can bore out and enlarge all the articulations in your machines then fitting them with very high-quality, heavy-duty roller bearings.

In conclusion, equipment modification may cost roughly \$5,000 to get it in its finished format. On one hand that's a lot of money but it's cheaper than buying a new MedX machine or any new machine. Moreover, your used machines are completely refurbished and built aesthetically like a brand-new machine. And then on top of that, it dramatically improves its function ensuring high quality workouts for your clients.

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