



# Resistance Exercise Secrets:

Why Everyone Should Be Doing It And How ARX Stacks Up Against The Competition



**ARX**

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Most people think resistance exercise is only good for building big muscles and lifting heavy things. FALSE!

The benefits are MUCH greater than that!

In fact, if you could take all of the benefits that you receive from doing resistance exercise and magically put them into a pill and sell it - you'd be a TRILLIONAIRE.

That's how AMAZING resistance exercise is for the human body.

The truth is...

Most people know they need to do resistance exercise but they don't know the reasons WHY.

That's where this report comes in.

We go DEEP about the BIG benefits of resistance exercise while also giving you supporting research that proves it's benefits.

We also show you how performing resistance exercise with ARX compares to "The Old Way" (think weights, bands, bodyweight, etc) to make this already amazing thing...EVEN MORE AMAZING! :)

If you have always wanted to understand why resistance exercise is so important to add to your training and what the best tool to do it is...then keep reading!

Inside this report is everything you could ever want on this subject and we are excited to show you this new perspective.

Welcome to the future of exercise...Welcome to ARX!



The ARX Team

# ARX Prevents Muscle Loss

Maintain Healthy Muscle Mass, Reverse Sarcopenia (Muscle Wasting)

Beginning at age 25, the average person can begin to lose up to 0.5 pounds of lean muscle every year if they are not exercising and eating sufficiently. This decrease in muscle can turn into what is called “sarcopenia,” or when you lose enough muscle mass because your body has not encountered a reason (ie. strenuous exercise or activity) to continuing making it.

Muscles play a major role in controlling hormones and if we do not stimulate them with the right level of exercise, there are a host of negative effects that will occur when muscle loss becomes significant.

## Research

Increasing muscle mass has important functional and metabolic benefits for elderly people

**SOURCE**

Resistance exercise prevents muscle loss as you age

**SOURCE**

Resistance exercise helps you regain lost muscle mass

**SOURCE**

### MRI Leg Comparison of Sedentary Man vs. Triathlete.

*74-year-old sedentary man*



Adipose tissue      Quadriceps

*70-year-old triathlete*



**Key Takeaway:** *If you don't use and stress your muscles, you lose them! It's crucial that you send a high enough (and safe) signal in the form of resistance exercise to push your body to maintain muscle mass.*

Source: Yarasheski et al, Managing Sarcopenia With Progressive Resistance Exercise Training

<i>Old Way</i>	VS	<i>ARX</i>
3 strength workouts per week lasting 45 minutes each to prevent and reverse sarcopenia	➔	1 workout per week lasting 12 minutes to prevent and reverse sarcopenia
Difficult learning curve to acquire the necessary skills to perform meaningful resistance exercise	➔	Easy learning curve that allows for immediate access to meaningful resistance exercise

# ARX Helps Your Heart

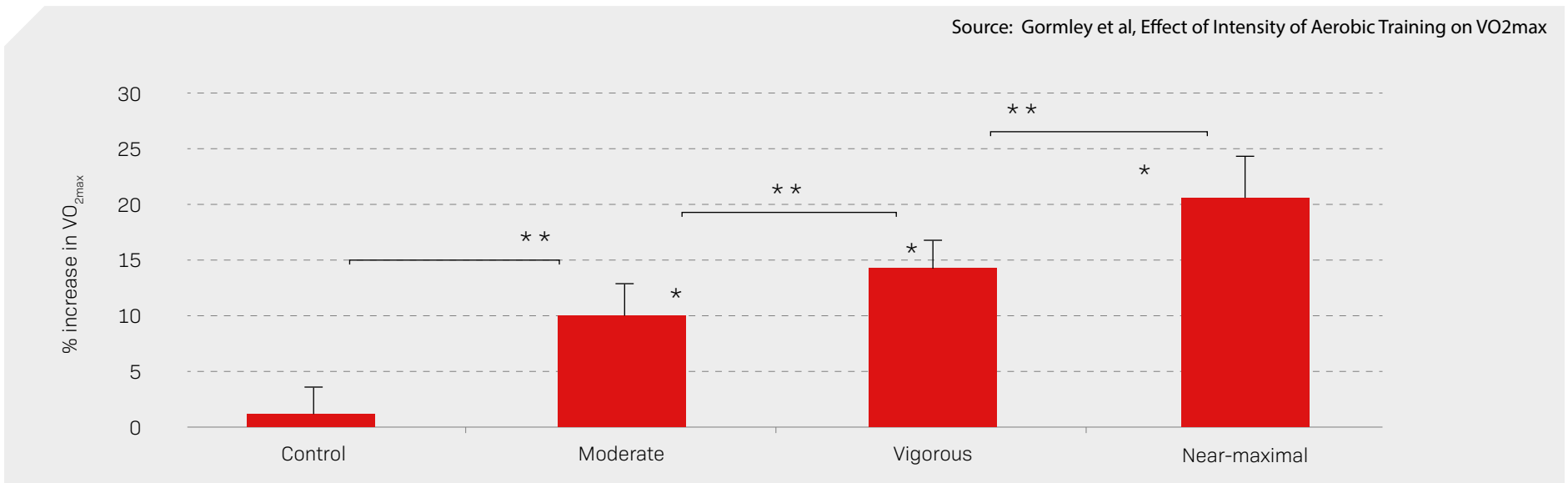
The Best Tool to Condition the Cardiovascular System

Training and improving the cardiovascular system (heart and lungs) is a staple of any effective exercise routine. The main question, however, is what's the most effective way to do this? People spend hours per week jogging and running on treadmills in pursuit of better "cardio" conditioning, but is this the only way to improve the cardiovascular system?

As it turns out, no! High-intensity resistance exercise performed at a high intensity has been demonstrated to maximally tax the muscles and the cardiovascular system, leading to significant increases in its total capacity and overall capability over time.

## Research

<p>No advantage to hours per week of cardio</p> <p><b>SOURCE</b></p>	<p>Resistance exercise improves <i>all</i> portions of cardiovascular fitness</p> <p><b>SOURCE</b></p>	<p>Why resistance exercise is the best exercise for heart health</p> <p><b>SOURCE</b></p>
<p>Higher-intensity exercise is more effective for improving VO2max</p> <p><b>SOURCE</b></p>	<p>Six minutes of difficult resistance exercise, once per week, is equally effective for cardiovascular fitness as an hour of daily of moderate cardio activity</p> <p><b>SOURCE</b></p>	



**Key Takeaway:** Compared to traditional "cardio" training, high-intensity resistance training (like ARX) can be more effective and more time efficient when trying to improve your cardiovascular system.

Old Way	VS	ARX
<p>Spend 3-5 hours per week doing "cardio" to improve cardiovascular fitness</p>	<p>→</p>	<p>Spend 12 minutes per week to improve cardiovascular fitness</p>
<p>Accumulate wear-and-tear injuries to your hips, knees, and ankles in the pursuit of cardiovascular health</p>	<p>→</p>	<p>Achieve your cardiovascular fitness goals while <i>improving</i> your joint health and enhancing your resistance to injury</p>



# ARX Maximizes Muscle Growth

Increase Muscle Size

Whether you are an athlete looking for sport performance or a retiree who just wants to look good and feel good, the importance of building and maintaining lean muscle must be the highest priority. It should be your body's fifth vital sign.

Many books, videos, and magazines have talked about muscle building and the various methods to achieve it, but few capture all of the variables required to do so. When all of three keys are incorporated and optimized for using a tool like ARX, muscle building has been easier to achieve in such short amount of time.

## Research

Women find muscular men more physically attractive

SOURCE

Female body composition benefits from having more muscle mass

SOURCE

Skeletal muscle is essential for life satisfaction and longevity

SOURCE

The "active ingredients" for muscle growth: mechanical tension, muscle damage, and metabolic stress

SOURCE

## The Adaptive Triangle

### Metabolic Stress

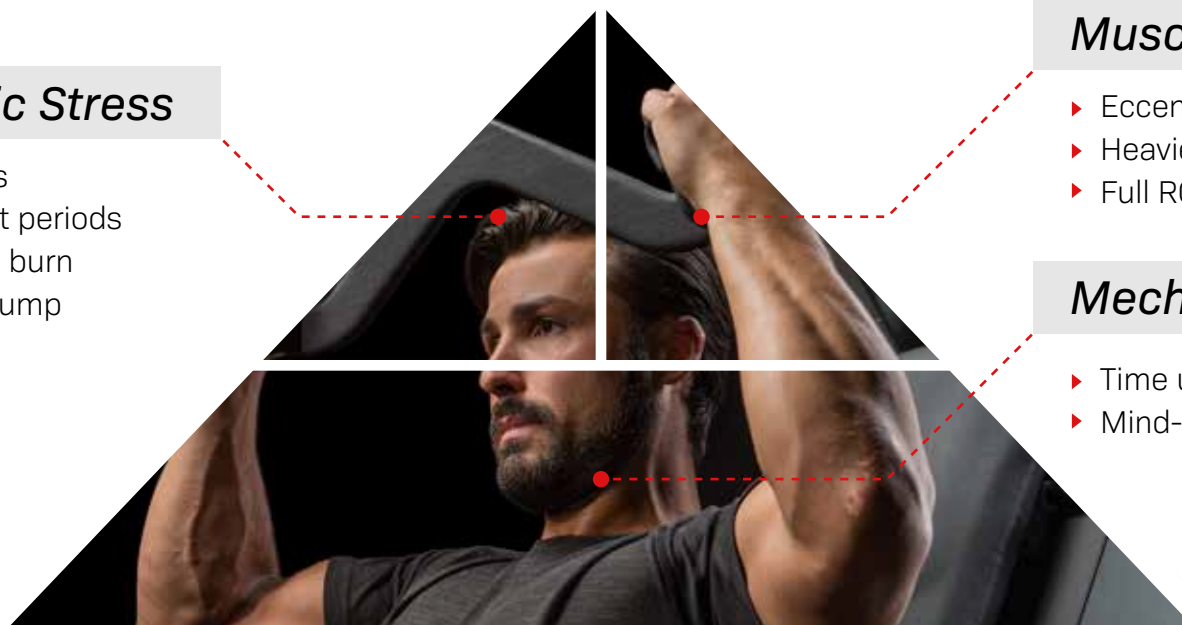
- ▶ Higher reps
- ▶ Shorter rest periods
- ▶ Feeling the burn
- ▶ Getting a pump

### Muscle Damage

- ▶ Eccentrics (negatives)
- ▶ Heavier resistances
- ▶ Full ROM

### Mechanical Tension

- ▶ Time under tension
- ▶ Mind-muscle connection



**Key Takeaway:** Optimal levels of muscle mass are vital to living a healthy, vibrant lifestyle. The "active ingredients" shown above that result in increased muscle mass are maximally effective, safe and efficient when using ARX.

### Old Way

4-6 workouts per week using high volume of reps with workouts lasting an hour or more

Weights need to continually be increased to challenge the muscle which increases the risk for injury

VS

### ARX

1-2 workouts per week using high volume reps with workouts lasting 12 minutes

The level of resistance is perfect and unlimited to always challenge the muscle sufficiently while keeping risk of injury low

# ARX Enhances Your Hormones

Improve and Optimize Hormones

It doesn't get a lot of press, but resistance exercise is one of the most potent and efficient ways to optimize your hormone levels. Resistance exercise directly stimulates your muscles which are major regulators of your endocrine (hormonal) system.

Hormones are messengers that travel through the body and regulate actions such as growth, metabolism, fertility, and resilience to stress. When resistance exercise is performed, big amounts of hormones get released like testosterone and growth hormone which help to regulate the body and keep it healthy.

## Research

Insulin sensitivity is enhanced by resistance exercise

SOURCE

Resistance exercise can increase human growth hormone and testosterone levels

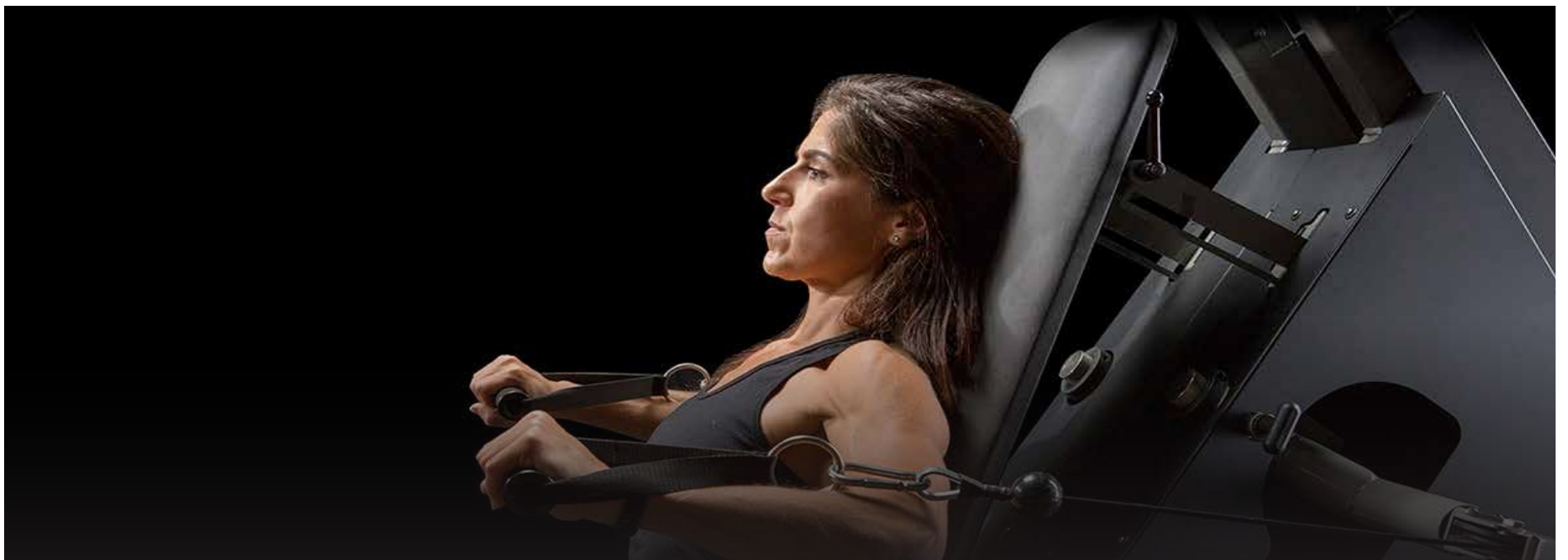
SOURCE

Resistance exercise causes the release of growth hormone, epinephrine, and norepinephrine which drive fat loss

SOURCE

Resistance exercise increases hormone-sensitive lipase and other enzymes that aid in the removal of fatty acids

SOURCE



**Key Takeaway:** You cannot function optimally without optimal hormone levels. Consistent, high-intensity sessions of resistance exercise have been shown to increase and balance your hormonal system.

### Old Way

Low-intensity aerobics and resistance training that have small positive effects on the hormonal system

Difficult to achieve the level of resistance exercise required to stimulate meaningful hormonal changes

VS

### ARX

Safe, high-intensity resistance exercise that have massive positive effects on the hormonal system

Easy to achieve meaningful resistance to stimulate hormonal changes, instantly and automatically

# ARX's Time Efficiency

Better Results in 93% Less Time

The CDC recommends a minimum of four hours per week of physical activity for the maintenance of health. In today's fast-paced world, that's a big ask! If you could get all the benefits of 4 hours of exercise in just 12 minutes per week, that would be a no-brainer, right?

With ARX, leveraging this technology can provide you maximal benefits while cutting workout times by 93% per week. No limitations. No compromising. No gimmicks. Just better resistance to achieve better results.

## Research

Resistance exercise once per week improves blood markers, muscle strength, and mental wellbeing

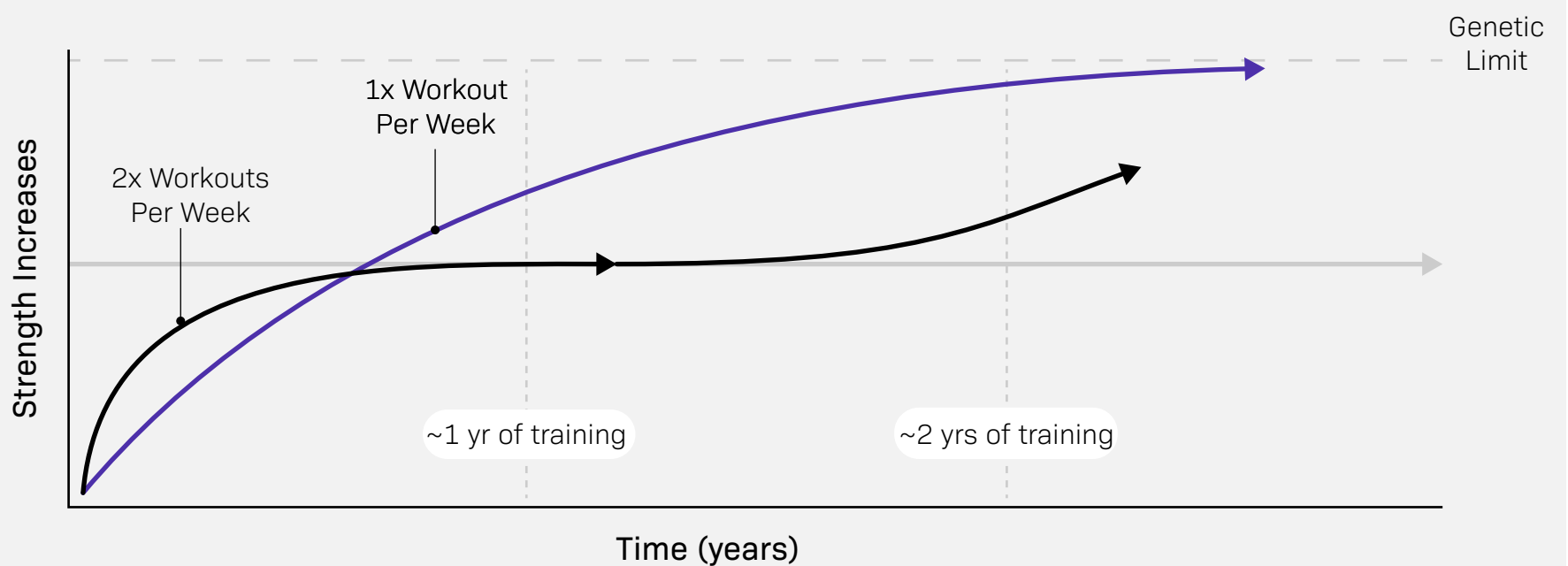
SOURCE

No benefit in strength seen when exercising once per week vs twice per week

SOURCE

One workout per week can improve muscle strength and neuromuscular performance

SOURCE



**Key Takeaway:** *If you use a potent, high-quality resistance like ARX for your exercise, you can achieve greater benefits with less of a time commitment compared to traditional exercise methods like weights.*

### Old Way

4 hours per week to achieve results

Workouts are longer, less intense, and difficult to plan while forcing you to sacrifice time from family, friends, and passions.

VS

### ARX

12 minutes per week to achieve results

Workouts are brief, potent, and convenient giving you more time to live life as you please without compromising improvement.

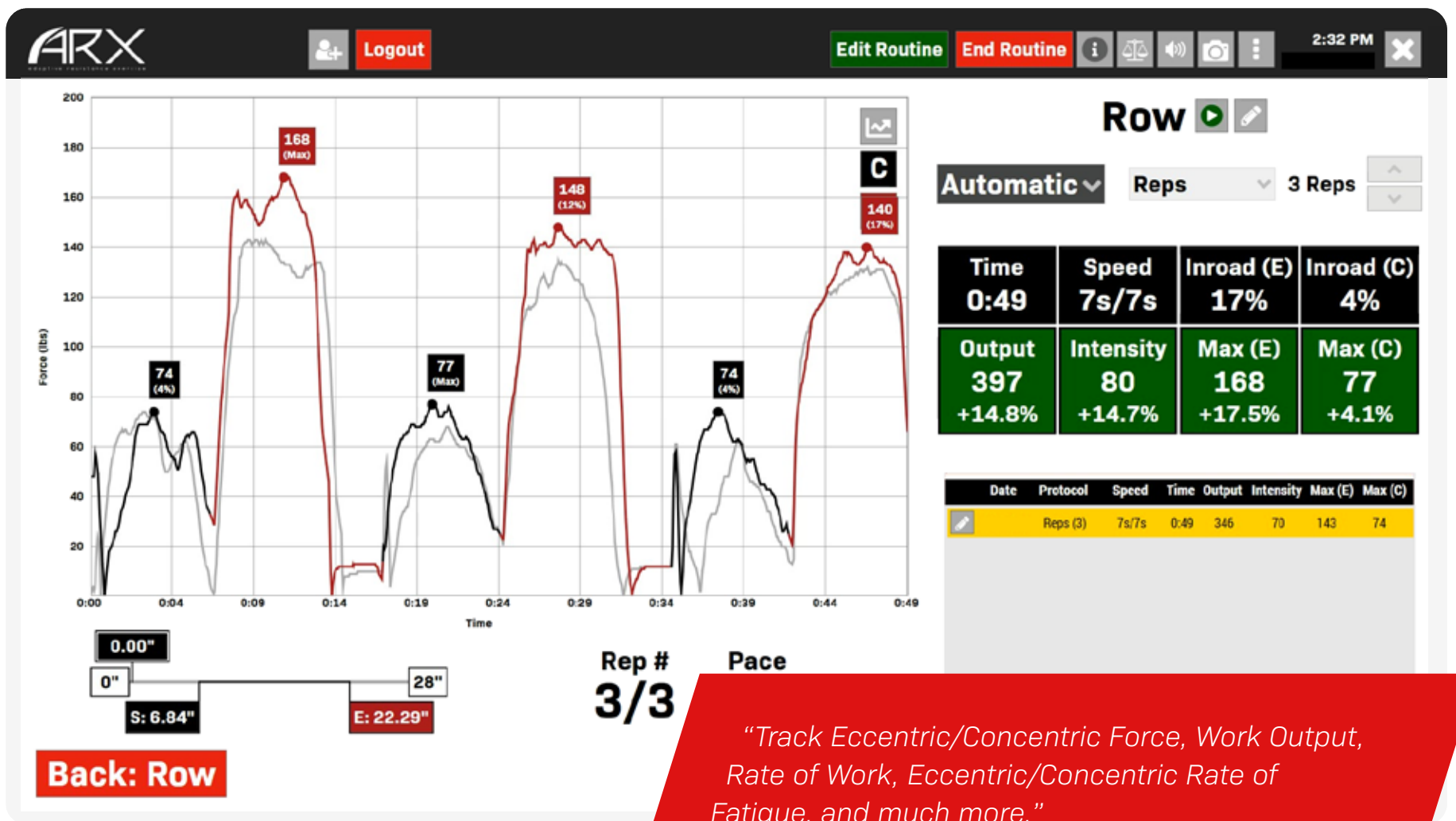


# ARX's Quantification

Track Your Progress to Improve Your Results

How hard is it to drive across the country without a map or GPS? Would take a few wrong turns along the way? How frustrating would it be if you had to constantly guess at every turn? Your exercise routine is no different - it's direction matters.

With ARX, we created "GPS" for your workouts by having our software digitally and automatically track the important data points of every rep and every set. No more notepad. No more clipboard. Receive instant feedback of every workout so you know exactly how you are improving and by how much so you are always headed in the right direction.



*"Track Eccentric/Concentric Force, Work Output, Rate of Work, Eccentric/Concentric Rate of Fatigue, and much more."*

**Key Takeaway:** ARX provides more detailed and granular tracking of performance data than any other tool available. This means you always have a 100% clear view of where you are in this moment and how you're improving over time.

Old Way	VS	ARX
Manually track sets, reps, and weight in a notebook or app	→	Automatically and digitally track sets, reps, force outputs, fatigue, % improvements, time under tension, and rate of work
Constantly guess what weight to choose, how much to increase or decrease to challenge yourself, and whether or not you are improving	→	Never have to guess another "weight" again, track anything manually, or figure out if you are improving

# ARX's Learning Curve

Working Hard Has Never Been Easier

Traditional resistance exercise tools like weights require a significant learning curve in order to use them safely and effectively. This learning process can take weeks, months, or even years to become proficient using these tools.

The goal of a successful exercise regimen is to challenge the body in a way that stimulates a positive change without getting injured in the process. From the very first workout, ARX allows any user of any skill level to be challenged effectively and safely with almost no learning curve. This means that workouts are more beneficial, more immediately, to users of all ages and skill levels when compared to traditional tools like weights.

## Research

Performing high-quality, safe, and intense exercise using weights requires learning many detailed and complex skills

SOURCE

~450,000 people in 2012 injured themselves in weight rooms while performing resistance exercise

SOURCE

Traditional exercise equipment tools and methods provide serious and non-obvious risks of injury

SOURCE



**Key Takeaway:** ARX technology allows people of every skill level to perform meaningful and intense muscular work during their first session, avoiding the traditional steep learning curve that exists with weights and other traditional tools.

### Old Way

Learning how to perform high-quality resistance exercise requires a significant and complicated learning curve

Spend weeks to months learning the skill and building up the capability to achieve meaningful levels of intensity.

VS

### ARX

Learning how to perform high-quality resistance exercise can be learned instantly with little instruction required

Meaningful levels of intensity can occur in the first session, no matter the skill level of the user

# ARX's Space Efficiency

Achieve More in Less Space

Since the dawn of the big-box gym, serious resistance exercise had to be conducted in a large space filled with multiple machines, racks, and stacks of metal weights. (Lifetime, Equinox, etc) This model is out-dated, inefficient, and typically causes more anxiety in it's users than results.

ARX effectively shrinks an entire weight room into two pieces of equipment that easily fit into the typical area of a couch while also providing a superior experience to traditional weight rooms.



**Key Takeaway:** ARX is the space-efficient, high-ROI replacement for the traditional weight room model that has been popular for the last 30 years.

## Old Way

Traditional weight rooms require 500-3,000 square feet of space to accommodate multiple machines

Traditional gyms purchase many machines to create value for their members which limits the space that can be utilized for other supportive tools and technology

VS

## ARX

ARX can replace an entire weight room in less than 150 sq. ft. while providing more benefits

ARX's small footprint of one or two machines allows for larger areas of free space so users can add supportive technologies and services

# ARX's Neurological Benefits

Better Signals = A Better You

Our understanding of how the brain and body communicate is expanding rapidly. We now know how important a strong neurological connection between your brain and body is and the resulting health and performance benefits it can provide.

From increased strength to improving resilience to stress, high-intensity resistance exercise has emerged as one of the best ways to fundamentally improve and optimize the brain's capacity and effectiveness.

## Research

Exercise improve cognitive functioning and well-being

[SOURCE](#)

Resistance exercise increases Brain-Derived Neurotrophic Factor (BDNF), which increases the growth of new brain cells

[SOURCE](#)

Resistance exercise optimizes neurotransmitters, improving mental health and preventing symptoms of depression

[SOURCE](#)

## What does exercise do for your brain?

### LEARNING

A 2012 study found that even one exercise session can help you retain physical skills by enhancing "muscle memory" or motor memory"

### LONG-TERM MEMORY

Resistance exercise for as little as 20 minutes releases norepinephrine (stress hormone) to boost your long-term memory by 10%.

### REDUCE DEPRESSION

Exercise boosts the body's production of PGC-1alpha, which breaks down depression-causing kynurenine.

### BETTER, FASTER, STRONGER

Research from the University of Illinois shows that resistance exercise increase the brain's white matter, making it denser. Having denser white matter makes your brain function faster and more efficient.

### HEAD AND HEART

Exercise improves heart function, making it better at pumping blood and oxygen to the brain. More blood and oxygen being pumped to the brain has been shown to improve people's cognitive test results.

### IMPROVE CREATIVITY

Researchers at Stanford University found that walking can increase creativity up to 60%.

Source: DocChat

**Key Takeaway:** To maintain high performance and longevity of your brain, performing resistance exercise is a well-researched tool that can significantly improve the nervous system and balance neurotransmitters.

## Old Way

Hours per week are spent exercising to "keep my brain healthy" and avoid cognitive decline

Performing resistance exercise becomes more dangerous as you age, making it more difficult to do in your later years when you need it most

VS

## ARX

One, 12-minute workout per week can prevent cognitive decline

High-level resistance training is safe, easy, and time-efficient for anyone of any age



# ARX Maximizes Bone Growth

Strong Bones For A Strong Life

Strong bones are the foundation of being a healthy human. After age 30, bone density begins to decrease slowly as we age and decreases quicker once we get to our 60s. Osteoporosis (bone loss) is the cause of ~9 million bone fractures reported worldwide. Bone loss can be slowed and reversed through the use of high load, resistance exercise, but many people avoid doing it for fear of injury.

ARX believes it's the right of every person of every age group to be able to perform safe, high-quality resistance exercise so they can have strong bones well into their latter stages of life.

## Research

~200 million people suffer from osteoporosis

SOURCE

Safely loading the bones via resistance exercise improves bone density

SOURCE

Dynamic contractions (during movement) are superior for bone density improvements

SOURCE

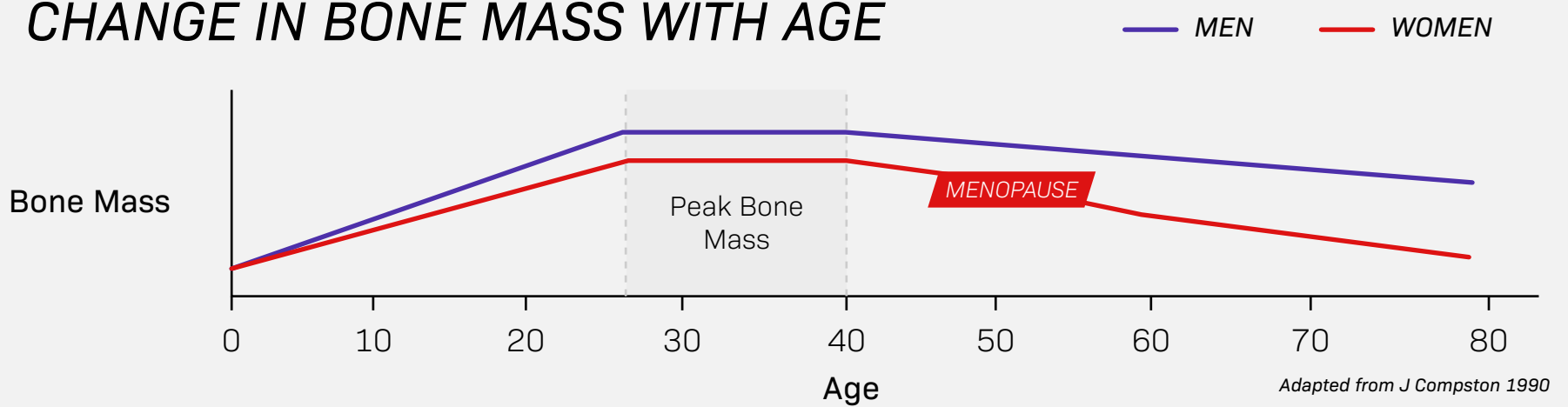
Eccentric resistance exercise is the optimal method to increase bone mineral density

SOURCE

**Key Takeaway:** In order to maintain strong, dense bones as you age, you must effectively perform resistance exercise. ARX is one of the safest and most effective methods of resistance exercise for stimulating bone growth.



## CHANGE IN BONE MASS WITH AGE



### Old Way

You realize you need to start doing resistance exercise to slow down bone loss but you are intimidated by traditional tools like weights



### ARX

High-quality resistance exercise can easily and safely be performed by anyone, at any age, to slowdown or reverse bone loss as they age

Your doctor tells you that you "need to exercise" to improve bone density, but you aren't sure what to do, how often, or at what intensity



Performing the correct intensity of resistance exercise that triggers bone growth can happen instantly, automatically, and with little to no learning curve

# ARX Makes Your Genes Younger

## The Epigenetic Effects of Resistance Exercise

While the science of epigenetics is still in its infancy, the research community has provided solid evidence that the genes we are born with are not our destiny. The genes are the blueprint, which can be turned on or off based on our physical environments, our diets, and even the people we surround ourselves with.

It is now known that resistance exercise can improve how our genes express themselves, activating certain genes in a positive way to enhance our health, happiness, and long-term physical function.

### Research

Resistance exercise improves DNA sequencing, cellular signalling, and hormonal expression

**SOURCE**

Resistance exercise activates inactive genes to improve methylation and RNA transcription

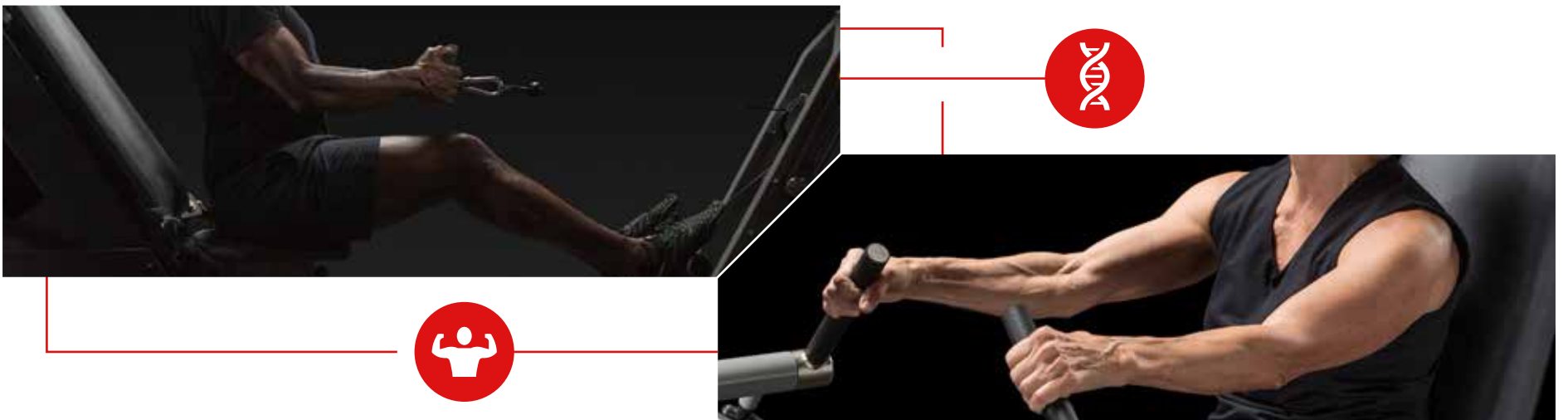
**SOURCE**

Muscular contractions can increase thermogenic and mitochondrial function to reduce fat tissue

**SOURCE**

Resistance exercise improves genetic markers of cellular function, lean mass, metabolic health, and longevity

**SOURCE**



**Key Takeaway:** Resistance exercise can have profound positive effects on the body's genetic expressions to prevent disease and promote healthy cellular function.

### Old Way

The intensity of resistance exercise required to trigger positive genetic changes is difficult to achieve quickly and safely using traditional tools like weights

Perform multiple, time-consuming resistance exercise sessions per week to accumulate enough muscular work to meaningfully improve gene expression

VS

### ARX

Performing intense resistance exercise is easy to achieve, highly effective, and extremely time-efficient for all ages

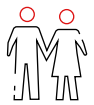
Perform one weekly workout for ~12 minutes to improve genetic expression

# ARX Makes You Younger

## How Resistance Exercise Turns Your Clock Back

A large majority of the senior citizen population have avoided resistance exercise for most of their lives, resulting in a massive number of them currently dealing with bone (osteoporosis) and muscle (sarcopenia) loss disease in their later years.

When this population begins performing safe, high intensity resistance exercise (like on ARX), it's common to see them double their strength numbers while increasing their bone and muscle mass, energy and general function in life. This can all be achieved with just one workout per week.

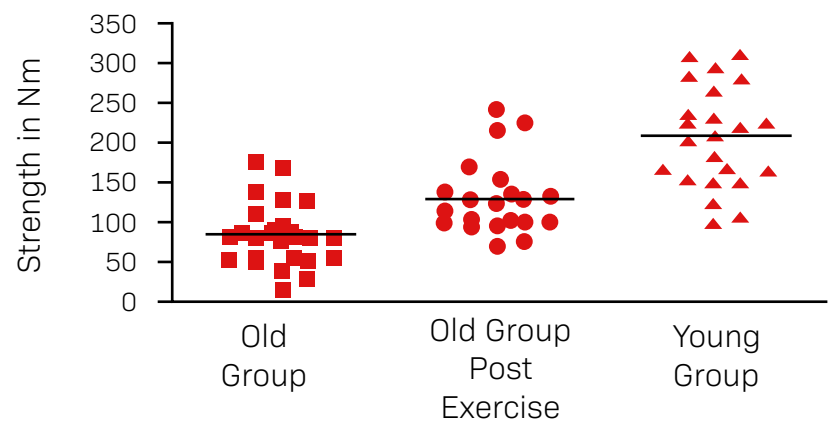


**Resistance exercise can produce the following changes in seniors:**

- Regain muscle strength and function
- Improved blood lipid profiles
- Increased gastrointestinal transit speed
- Improved postcoronary performance
- Reduced resting blood pressure
- Increased bone mineral density
- Relieved depression
- Increased metabolic rate
- Enhanced walking endurance
- Reduced body fat levels
- Increased muscle strength and muscle size in senior men and women, including nursing home residents
- Enhanced glucose utilization
- Alleviated low-back pain

The above studies are all supportive to the idea that resistance exercise is wonderful to slow down aging, but this is most important study ever done on resistance exercise and aging: ["Resistance Exercise Reverses Aging in Skeletal Muscle."](#)

By the end of the study, the researchers observed that the group who performed resistance exercise had 596 genes who reverted back to a youthful presentation and function. In short, the genes started acting younger!



Source: Melov et al, Resistance Exercise Reverses Aging in Human Skeletal Muscle

**Key Takeaway:** Resistance exercise can help our genes to act like a more youthful version of themselves even when performed during the later stages of life.

### Old Way

Physical weakness and muscle atrophy are just "part of getting older"



### ARX

Physical weakness and muscle atrophy are completely avoidable with one weekly ARX session lasting ~12 minutes

The later years of life are filled with aches and pains, loss of independence, and loss of resilience



The later years of life are pain-free, with a physical body and mind that is strong and resilient

# ARX for Rehabilitation & Physical Therapy

More Confident Recovery In Less Time

Resistance exercise has been the primary intervention in cases of rehabilitation and physical therapy for decades. In particular, one form of resistance exercise used in rehab is called “eccentric loading,” or when there is more load placed on the muscle in the lowering phase of an exercise. This type of loading is what ARX technology can uniquely provide unlike any other technology on the planet. By providing perfectly matched eccentric resistance 100% of the time, ARX can make a technique that is typically difficult to perform and make it easy, safe and quantified like never before in the PT and rehab world.

## Research

Eccentric-focused resistance exercise is more effective than a standard protocol for ACL reconstruction rehab

SOURCE

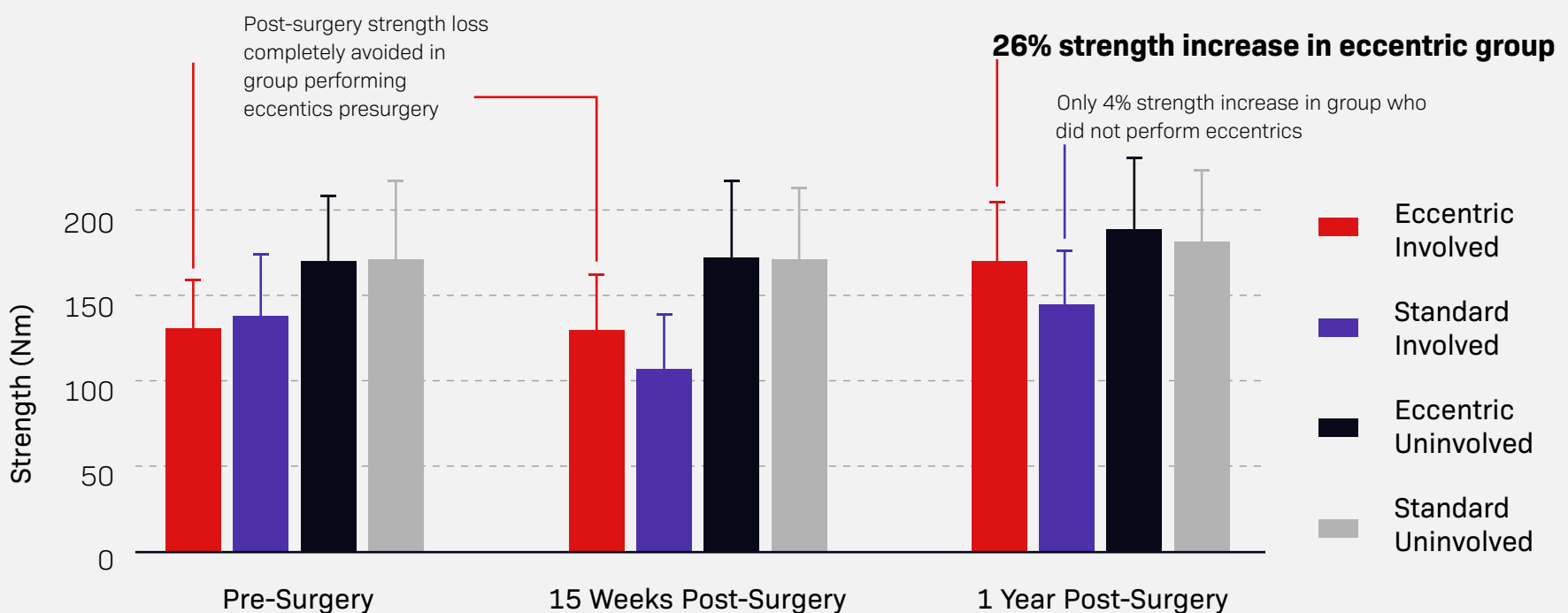
Eccentrically-biased exercise may help amplify and accelerate physical function following total knee arthroplasty surgery

SOURCE

Eccentric-focused rehabilitation produces more rapid improvements in patients more safely than traditional rehabilitation protocols

SOURCE

Source: Gerber et al, The Use of Eccentrically Biased Resistance Exercise to Mitigate Muscle Impairments Following Anterior Cruciate Ligament Reconstruction



The group that performed eccentric loading (red) avoided all loss of strength (post-surgery) compared to the standard group (purple) 15-weeks post surgery. They also had a 24% strength increase one year after surgery compared to the group (purple) that did not perform eccentric training.

**Key Takeaway:** Resistance exercise and eccentric loading can restore muscular strength and function following injury or surgery quicker than standard resistance exercise techniques.

### Old Way

After surgery, you attend 8-12 weeks of rehab that helps to restore your range of motion and a small amount of strengthening

Rehab is slow, non-progressive, and not effectively quantified, leaving you feeling unsure if you are fully recovered before returning to normal activity

VS

### ARX

After surgery, rehab can immediately begin to consist of mobility and strengthening exercises while maintaining safety in the process

Rehab is expedited, forward-thinking, and entirely quantified, leaving you confident as to when you can return to normal activity