

Top 5 strategies for improved physical conditioning

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The common mistake made by most athletes, including shooters, is to place too much importance on skill based training and to ignore physical fitness training. It's true that at various stages of the competition year the emphasis on types of training will change, but the key is to manage your physical condition and ensure that it always remains at peak levels. I have seen many athletes over the years perform poorly at major competitions simply because they did not have the physical capacity to cope with the rigors of competition at that level. So the big question is, "How much training do you need to do?"

Each type of training requires a different level of commitment and each athlete has different challenges that they need to work on. However, there are some general guidelines that you can follow, which will provide you with the best fitness outcomes.

On a broad scale, I would suggest that most elite athletes, shooters included, should be doing anywhere between 7-11 training sessions per week depending on the time of year. Typically these sessions are further broken down into 5-7 technical or skill based sessions and 2-4 physical fitness sessions. Generally, training sessions will last 50-90 minutes, depending on the type of activity, but most should be in the vicinity of 50-75 minutes.

This time can be broken down into three sections and should start with a warm-up and end with a cool-down and can, for example, have an active or conditioning session in between. Warm ups tend to take up to 10 minutes and should reflect the type of program you intend to follow in the session. As an example if you are going to do strength work then doing warm-ups is better than hopping on a treadmill. If you are going to do cardio or aerobic fitness training then a treadmill walk or jog is best then followed by a light dynamic type of stretching exercise.

The active part of the training sessions should be 30-50 minutes and options for this are as for warm ups, broad and really need to cater for your individual needs. If you are very flexible, stretching will provide little long term value, so it's best to look for other options that will achieve a better use of your time. If you are weak and tire through the arms and shoulder, strength training will provide enormous short term benefits. Once you have determined which type of training will benefit you best in the shortest amount of time, you need to just start training.

One of the most common questions I am asked is how long will it take to see results. As I mentioned previously, we all have physical strengths and weaknesses and our training program needs to reflect those differences. Therefore, we can't simply follow a program that worked well for someone else as it may not allow for our individual strengths and weaknesses. So what are the top five best uses of your time that will provide almost immediate benefits for your fitness and shooting performances?

1. Get Stronger

Strength training is my number one recommended best training activity to improve performance because it is like the master key to performance. Increased strength will improve your ability to perform for long periods of time, reduce the effect of fatigue on your posture and improve control of your shooting arm. You can make good improvements in strength in a very short time. Typically, 8 - 10 weeks will produce a 10 – 20% improvement, depending on previous training experience.

This training does not have to be done in a fitness centre, but rather can be done where ever there is a wide range of training tools. If you have ever seen strongman training techniques,

you will have noticed that they lift a wide range of heavy objects such as large stone balls, logs, cars, kegs etc. Regardless of what you lift, the aim is to increase your general strength so that your body is capable of sustaining a higher output of force.

When you first start strength training you will see significant gains as the brain or neural system tends to respond before muscles grow. So in the first 10 weeks most of your progress tends to come from your brain learning how to utilise your muscles better. Continued strength training will still improve strength, but at slower rates than that achieved during the first 8 - 10 weeks because the effect of training thereafter is due to the change in muscle rather than the learning of the brain. After this time muscle mass and shape begin to change resulting in a leaner stronger physique.

2. Improve your posture

Good posture is all about positioning your body so that the muscles can move your body or hold it still with the least amount of effort and in the most efficient way. The aim with good posture is to allow your body to function at its best without restriction and thus deal with all activities and actions in the best possible way.

Training to improve posture takes time and changes are very subtle, typically taking 3 - 4 months to notice. But the results will show in your performance within 1 - 2 months. I have discussed posture often in previous articles and believe it is the foundation of good movement and stability. Changing your posture is challenging and does require commitment, but the long term benefits far outweigh the time required to improve and achieve good posture.

To improve your posture you will firstly need the assistance of someone who is able to assess your posture and suggest methods for making improvements. The type of activity that you will do is quite simple, but very specific to respective muscles. This may involve you holding a position of light contractions in multiples of 10 lots of 10 seconds. It may involve some stretches held for 5 - 7 minutes to allow gravity to affect the stretch. Posture –good or bad - is a habit and it takes time to change the habit of your current posture and replace it with the new habit. Therefore, to improve your posture, you would need to allocate 15 - 20 minutes each day to exercises geared towards that goal.

3. Boost your fitness

It is estimated that more than 75% of the population is unfit and shooters don't have a great reputation for being aerobically fit athletes. I would suggest that boosting your fitness is an area of weakness that would show significant gains in performance. Aerobic or cardio fitness is the ability to sustain continual effort over long periods of time. Any competition lasting more than 5 minutes requires a corresponding contribution to performance from the aerobic fitness system. The longer the competition, the more you will rely on your aerobic fitness.

Having good aerobic fitness is not just about being able to run all day, it is also about your body's ability to cope with stress and to recover from effort. The fitter you are the more you are able to deal with the stress of competition, remain relaxed, slow your breathing and control your body to achieve the best shot.

To improve your aerobic fitness, current recommendations suggest that an adult should be doing at least 30 minutes of "huff and puff" activity each day. This means that you need to move your body for 30 minutes at moderate levels, which alter your breathing rate to the point where your ability to talk evenly is affected. This is reflected in a raised heart rate and an increased breathing rate and it provides the activity to boost your fitness. As your fitness improves you will be able to work harder for the same level of "huff and puff". In order to

schedule this into your normal weekly routine, it really should be considered as one of the lifestyle based activities rather than a sport training activity.

There are many ways in which you can boost your aerobic fitness, remembering that the main aim is to “huff and puff” for 30 minutes. Generally you will notice changes in your fitness after 3 - 4 weeks, which will result in a lower heart rate, faster recovery times and an ability to perform for longer and work harder. All this brings a great feeling of well being and improved mood and attitude.

4. Lose any excess weight

It's amazing how much harder your body needs to work to support a few extra kilos of body weight. Sure your body is heavier and your clothes don't fit as well, but more important is the strain on your heart and lungs trying to circulate enough air and blood to provide energy to the system.

Shooting is not a sport where power to weight ratio is important, but as muscle to fat ratios change, stress on the system increases proportionately. To lose half a kilogram of body fat in one week, you need to have a calorie deficit of around 3850 calories, which transfers to 550 calories less per day. Generally most people should eat about 300 calories less and burn off 250 calories more in activity. Running generally burns almost twice as many calories as walking, but the aim of 0.5 kg fat loss per week requires 250 calories burnt through activity daily as well as a reduced calorie intake.

If you started eating less today and burning off extra calories you would begin to lose weight immediately. That's the best part of weight loss, it occurs as soon as you change your habits. Walking only three kilometres in one hour burns 180 - 240 calories. Not a bad way to lose weight and you gain some great fitness along the way.

Reducing your weight has many more health benefits for shooters than sports performance improvements. But the sports specific benefit is the ability to cope with training and compete more effectively.

5. Improve your balance and stability

Finally, as the sport of pistol shooting requires a degree of balance and stability to maintain the shooting position, working on improving these basic skills will also transfer to your sport in a very short time. Exercises for improving balance can start with standing on one leg for 30 seconds then the other and then resting. When you can do this without falling try the exercise with your eyes closed. This is a very important step as most people have what is known as visually dominant balance mechanisms where the eyes are used to establish balance and position in space without concentrating on feedback from the muscles and joints. Such feedback is known as proprioception and is vital to maintaining a stable, upright stance.

The level of difficulty of this simple drill can be increased by standing on a piece of foam or rubber to achieve a more unstable surface, which will require greater effort. Again once you are able to do the drill without falling you should progress on to doing it with your eyes shut. It is very important that you learn how to control your position by using feedback from your muscles and joints, instead of using your eyes. When shooting, you want your eyes to be focused on the target and not on your balance. If you can learn how to balance your body better by responding to feedback from your lower body, your eyes will have only the one task of focusing on your target.

These top five best uses of your training time will provide you with the quickest improvements to your shooting performance. You may not do all five, but look for those that apply to you and get started as soon as you can. In less than 4 weeks you should see noticeable changes and within 10 weeks you will see the benefit in improved performance.