TRIPLE X
ARCHERY CONDITIONING

Training Manual
Triple X Archery Conditioning

The Complete Guide To Conditioning For The Archery Athlete

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Thank You

Preparing a program like this starts with an idea. This particular idea has been flitting about in my head for years without actually evolving into something concrete. The problem with most ideas is they remain dormant sometimes never actually seeing the light of day, despite being a really good one.

To transform the idea into reality requires an outside force, and in the case of this project, quite a few outside forces.

A trip to Thailand in May 2009 alongside six other incredible fitness professionals made sure this program got written and ultimately released. All six are the silent voices behind this program and their inspiration is weaved right into the text.

There are the archers I have shared the shooting line with over the last 25 years at an international level, national, regional and local, some fit and healthy, shining examples of how our sport should be perceived and those not so fit individuals who have yet to find their way to achieve sporting fitness, don’t worry I’ve been there!

And my coach and closest friend, Alistair Whittingham, for his incredible talent for turning mediocre archers into champions all over the world. I am forever indebted to you for supporting me through my most trying times and being the real driving force behind both Sam’s and my own success in this sport over the last 14 years. I am so glad you finally discovered your purpose :o)

And of course to Sam for being my constant source of energy and love. The wisest words ever spoken to me was on my wedding day by the minister of that day.

“Happiness is being married to your best friend”

I can tell you I’ve never been happier.
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Introduction

Do I REALLY Need To Be Fit For Archery?

Physical fitness and archery are not two things that are generally associated with each other. Let’s be honest, archery has never really been considered a sport that requires super fit individuals in order to participate in the sport.

Our sport often has many parallels to golf, and over the last few years we are seeing many top golf professionals take physical fitness extremely seriously to the point of it becoming a distinct advantage for those that have it, Tiger Woods is the obvious example here.

We are seeing more of our world and Olympic champions do physical training to improve their performance, not necessarily for the same reasons as Tiger, but there are some obvious physiological and psychological benefits to being fitter than your opponent.

The next chapter will explain my background, you’ll be surprised to hear that I have not always been the fittest guy, in fact my fitness levels were damn right abysmal until about 4 years ago.

Here is the difference it can make...

The year before my change in fitness levels I was a good archer, competing regularly at the Five Nations FITA field series in Europe.

The five tournaments have a reputation for being tough, not only from a competitive perspective but also physically challenging too.

I remember my first visit to the Cadier round in the Netherlands and getting to the end of the first day and being unable to climb the stairs to my hotel room on the Saturday evening, let alone get around a 2nd, equally tough, course the following day. To say this has an impact on your ability to perform at your best is obvious.

Move forward to the last few years and the same piece of ground, and similar intensive physical challenge and I am able to get around two days of competition without feeling the effects.
In fact, I know that it has made a difference when I am able to say at the end of shooting a tournament that I would be able to continue shooting for a further two days without any problems.

My good friend and widely known performance coach, Alistair Whittingham, talks extensively about being about to manage your performance at a tournament is not just about the physical act of shooting, or the psychological routines that you follow when you pick up the bow to shoot.

If your fitness levels mean that you are fatigued by as little as 5% from your optimal state, this can and will impact your ability to execute the shot the same each time.

You'll get a full run down of the reasons why I have prepared this program as well as its primary aims later in this chapter, but also I want to give you an insight into the principles of health and fitness that I use personally as well as with my Personal Training clientele, so you too can benefit fully from this with improved shooting performance.
The Archer As An Athlete

It's Not About The Bow!

As an archer you train your skill week by week at the shooting range or, for the more committed this is a day by day regime. Some seek the specialist assistance of the club coach, others hire help in the form of professional coaches to help see improvements in the skill side of your sport.

However this continuous emphasis on constantly improving your skill, with no regard to your physical conditioning may very well be holding you back and also in a global sense holding back our sport from getting the respect it deserves.

Archery tends to be eternally in the shadow of other major sports.

For example, even though we draw parallels between our sport and golf, we are worlds apart in terms of the status of its participants in the minds of the armchair enthusiast.

There is a part of golf that over the last 10 years has confined archery to the status of weekend warrior. The golfer however is now seen as the true athlete. The physical and mental demands on the golfer mean that physical conditioning is deemed AS important as the skills training to a golfers training regime.

Tiger Woods has been the major driving force (quite literally) in dragging the professionalism of his sport out of the dark ages and to a point where he and his fellow competitors are seen as high performance athletes rather than a bunch of fat bankers walking 18 holes, occasionally striking the ball.

Tiger has a large team of strength and conditioning experts, as well as coaches associated with the skill and physiological side of the sport.

We are at a turning point with the sport of archery where we can easily develop the same level of respect from the outside observer, but only if we are seen as true athletes and not a bunch of guys prancing around the woods with bent sticks and twine.

Physical conditioning for the archer is an area that has been neglected, we are in the same position golf was in before Tiger Woods arrived in golf. A seemingly professional sport without the professional outlook on optimal preparation for the sport. I hear many people asking the same questions...

“Does physical conditioning really have enough of an impact on our performance on the tournament grounds to justify spending the time away from our skill based training? Should we really be taking the time to pull on our training shoes rather than the quiver?”

My answer to this is obviously yes.
My own story is a reflection of how improvements in my health and fitness levels made substantial improvements in my shooting performance, enough to give me a top 30 world ranking for field archery and representing my chosen country at three world championships.

Of the training programs archers have tried in the past or are using today, some have simply not identified the unique challenges of the athlete archer, whilst others are downright dangerous to the structural health of the archer.

Being an archer AND a fitness professional I have cringed at the routines set for elite level archers on the world class performance programs for various national governing bodies.

Routines that have included explosive, power lifting exercises that have no place in many vaguely conditioned athletes program let alone an archer who spends the majority of their week completely sedentary working at a desk.

Other training routines have focused excessively on the aerobic level training routines more suited to a long distance marathon runner.

Up to now I have been reluctant to address this obvious gap in optimal conditioning routines for the archery athlete, but of late I have become so frustrated at the archaic methods that coaches and other archers are suggesting to be the "ultimate" training regime, with no real idea of the basis of their exercise selection.

For example, I recently read a forum topic where one contributor claimed that push ups should never be done by an archer, this was not the first time I had heard this. And yet in the same paragraph telling us why a bench press (essentially the same movement pattern, but much more risky than a push up) is actually an ideal exercise we should be doing for scapular (shoulder blade) activation and mobility!

Other advice has claimed that spinning classes are a great routine for archers, where as short interval based routines are not deemed "safe".

Whilst at this point you may not appreciate why I have used these two examples, throughout this program I will explode many of the myths surrounding health and fitness, but in particular beat up the nonsense spoken on many of the online forums, and clarify which areas you do need to focus on for the best shooting performance.

My hand has also been forced to create this program by my coach of 14 years, who is also desperate to stop the madness of dangerous exercise programs and pointless training regimes given out to archers.

I am glad in some ways that I have been given enough of a reason to share my philosophy of physical conditioning for archery, not only for the benefit of your shooting performances, but also to give us the same status as our golfing counterparts and ultimately be seen as a true sport where athletic prowess is one of the key reasons why an archer wins a tournament.
So... How SHOULD An Archer Train?

Where Is All This Leading To?

So what are the key aspects of physical conditioning that I see as important for the archer? And also how does that fit with what this program is all about.

My overall philosophy on sports specific training is not what you may imagine. I truly believe that for 90 percent of people a sports specific routines is wasted on them. On the whole a general conditioning program that will make you fitter and healthier and will give you significant gains in sporting performance.

However, I would say there is grounds to identify areas of a particular athlete that need to be corrected. For the archer this would include stability, mobility, optimal alignment as well as other extrinsic factors that cause problems with our ability to perform the skills in the best possible way.

These are areas we will address in more detail in this program, as well as apply it to the conditioning program you will be doing.

For example, I would hazard a guess that you are probably an office based worker, or someone who adopts a seated posture for the majority of your day's work.

This alone creates postural and muscular imbalances that can seriously impact your ability to consistently and accurately perform throughout a tournament, at the level your skill has been trained to.

We all know our practice scoring and tournament scoring has a certain degree of difference, wouldn't it be great to close that gap so your tournament scores truly reflect the skill level you demonstrate in practice?

There are many factors that affect your ability to perform the perfect shot every single time. It is my belief that postural constraints as well as physical conditioning limitations play a much larger role in your inconsistency than you may imagine.

The process will start with identifying where your posture is not working in your favor, and we'll apply to your overall program techniques to make corrections rather than throwing you just another generic program you can pick up from a magazine or a book, which is no better than the extremes I spoke of earlier in this chapter.
We will also look to work on areas of weakness specifically common areas of "core" stability, your ability to hold good form whilst utilising as little resources as possible.

Don't worry too much about the terminology I am using at this point, each section of the training program will not only give you the practical "how" of the workouts, but also give you a strong insight in to "why" you are performing a specific exercise.

Once beyond that initial analysis and adaptation of the routines to suit your body as it is right now, we can then get you in to the meat of the training programs and really start to see the benefits of the effort you are putting in.

It would be easy for me to create a set of programs and just dish out a bunch of exercise descriptions and cool looking photos, but I know this will not qualify exactly WHY you are doing them in the first place.

There will be a continuing sub-goal with this program and that is to improve your overall conditioning, so not only will your ability to perform the skill improve, but also shed some of the excess body fat you hold and give you some lifelong habits that will keep you fitter and healthier for life and not just your chosen sport.

I hope the overall package you have invested in will serve as both a step-by-step guide to better shooting performances but also educate you in why your body and shooting form has got to the state it in now.

So if you are ready to get started, lets start bringing out the athlete in you and lift your shooting performances to new levels.
My Story…

Who Am I And Why Should You Bother Listening to Me?

Whilst I do not wish to bore you with my full resume, I think it is important you understand where I come from and what have been my motives for preparing this program.

My chosen career path and academic background, whilst useful to back up what I have prepared for you, what is more important is you appreciate that I am not simply an enthusiast or scribe passing on information that might be obtainable from any magazine or website.

I have been an archer, on and off for over 23 years at the time of writing. I started at a very young age, being introduced along with my family. Those early forays saw me achieve very little... basically I was crap at archery and I knew it. I quit the sport to take up more socially acceptable sports in the eyes of my school friends.

At the point that I returned to the sport early in my University career, after a long period of cycle racing, I was quite fit. This level of fitness declined as I moved from student to office worker, and the "creep" of excess levels of body fat was inevitable with reduced activity and poor eating habits associated with working in an office environment.

Despite this creep my Archery steadily improved with the help of my long time coach taking me from making up the numbers at tournaments to Scottish Champion, British Champion and regularly competing in the top ten at the European Five Nations series.

In late 2003 I decided that I was either going to have to quit my job in IT, or kill my boss! With my fitness levels at an all time low, I decided the best course of action was to become a fitness professional. This meant walking away from a "safe" IT career and spending an extended period away from my wife to retrain and get the diplomas I felt necessary for me to set up my own fitness business.
This change was absolutely necessary for my physical and mental health, as the ever expanding waist line and increased levels of stress could easily have resulted in a heart attack before the age of 40!

Since that time I have now competed at three world championships for my chosen country of Luxembourg and ranked as highly as 26th in the world for Field Archery.

What this has taught me is that performance on the archery field can be impacted not only by your shooting form, but your body fat levels, stress levels, postural imbalances associated with the office worker, and imbalances created by over-use due to training for shooting.

I have also noted that common training programs that archers have been given before, have done more to worsen postural imbalances and INCREASE chances of injury rather than the other way around!

The training programs I provide for my clients and the program set for you over the next eight weeks will aim to combat many of these problems. Not only will they improve your shooting performance but also positively impact your overall health levels too.
The Principles Of Archery Conditioning

Methods There Are Many, Principles But Few, Methods Often Change, Principles NEVER Do!

The clients of my company, GetFit.lu, as well as the members of my group training programs, ForestFit, and the owners of any of my other training programs all get the same education of the principles of good health and fitness.

The 'Methods' may change, but the 'Principles' always remain the same. My principles of training are called the GetFit Fundamentals, there are five of them:

Goal Achievement Strategy - Always have a goal, get excited by the goal, write the goal, take action on the first step, set the next step, take action, set the next step, take action... repeat until the goal is accomplished.

Assessment and Continuous Evaluation - Have a means to measure where you start from, where you are now, and where you are heading. This is the same for fat loss, muscle gain as well as sporting performance.

Form And Function - All training programs are designed to improve physical form AS WELL AS physical function. Whilst aesthetics is a powerful goal to follow, doing so at the detriment of your bodies function is not healthy. For example doing exercise to increase the size of your biceps may seem a great idea, if it is done at the cost of mobility of the elbow and shoulder joints then it goes against my principles of training.

Nutritional Responsibility - Whilst I do not have the space or inclination to go in to detail here, nutrition is a massively important part of my principles. To put really simply, eat fresh and clean produce more than 90% of the time, i.e. fresh fruit and vegetables, fresh meat, fresh fish, fresh and low fat dairy produce, drink water! Not complicated, but most people are NOT doing this 90% of the time.

Lifestyle Adaptation - Making your training fit in to your lifestyle. It should not be an exceptional thing you do for 2 months then stop, it is an ongoing, integral aspect of your life. Doing otherwise means you will bounce back to your old habits and poor fitness levels just as quickly as you gained them.
You'll find that this program focuses very much on the Form and Function fundamental more than any of the others, however I will touch on the others throughout this course. For more detail on the other fundamentals visit http://www.getfit.lu
The Myth Of Sports Specific Training

When confronted with creating this program, I was torn between just giving in to my own beliefs of sports specific training programs and satisfying what everyone believes they need to improve their shooting ability. I honestly believe that for 90% of people participating in a recreational sport, sports specific routines are a waste of time.

But I feel I am up against a massive industry of books, training manuals and strength and conditioning coaches who preach training regimes that target the specific movement patterns, energy systems, and strength requirements specific to the sport. Walk in to any Borders, Barnes and Noble or surf Amazon and you’ll find hundreds of books on the subject for all sports.

Right now you’ll probably be thinking “why the hell am I reading and following this very program?”...

And you’d be right too.

However I believe there is a place for programs that identify common postural and movement based issues that affect ALL individuals, that will make more of a difference to your shooting, rather than simply exercising the muscles that you already use in archery anyway.

Let me give you an example to help explain this a little more.

Our modern working environment means that we are in a seated position for the majority of the day, and it is very common to see certain muscles in the back, particularly the rhomboid muscles between the shoulder blades, are weak or just not firing at all. For an archer these muscles are key to mobilizing the shoulder blades through the draw sequence and hold at full draw. If they are inhibited you’ll start using other muscles to execute the shot. You’ll get fatigued quickly and have problems pulling through the clicker or holding up on the spot.

Sound familiar?

Now if I was to give you a sports specific program, I’d be looking to provide exercises that work on the drawing action, but because the muscles you want to be using are inhibited, no matter how often you train the movement, you’ll just keep on emphasizing the use of the wrong muscles.

This program has a very subtle, but vital, difference. We are looking to correct this common postural trait, with some targeted activation and stretching techniques that are not connected to archery, but specific to correcting the normal movement patterns. This has more of an impact on your shooting because now you can use the right muscles to draw the bow, use less energy and have a more consistent shot execution.
I hope this distinction is clear.

The other issue with sports specific routines is they tend to focus on isolating certain muscle groups to the exclusion of other more effective training methods.

Doing a program that improves your strength and cardio vascular fitness as well as reducing fat levels will improve your ability to perform more consistently for longer.

This is far more beneficial than focusing on specific muscles.

Unless you have nothing else to do except train for your sport then by all means you can focus on the details. But if time is limited, as it is for the majority of people, then I would work on general conditioning to get more ‘bang’ for your training ‘buck’.

So here is the deal, over the next 8 weeks we are going to work on improving your overall health and fitness, as well as correcting certain postural and movement based issues caused by extrinsic factors.

We’ll not get tied up with doing “reversals”, or training already faulty movement patterns. And in return we’ll get you fitter and improve your shooting consistency and performance where it matters.
The Myths And Misconceptions Of Effective Fat Loss

Every day of the week I am dealing with clients whose primary aim is fat loss, and to be honest many people make hard work of this. The problem is that many of the methods people employ to lose body fat are just plain wrong. Some are quite slow, some are utterly pointless and some actually make you gain fat!

I am going to outline some of the biggest myths with fat loss here, because this will give you more of an insight in to why the components of this program are very different from the training programs you might be expecting.

**Crunches**: If I had a dollar... you know where this is heading... I get tired of telling people that crunches are just no good for fat loss. How can I convince you that crunches really don’t have a place in your training program if you are short on time and fat loss is your goal. Really there are many more exercises out there that take less time, work your metabolism harder, and subsequently help you lose fat from your midsection.

We want to do movements that utilise large muscle groups, increasing the amount of muscle throughout the entire body to boost your metabolism. The crunch utilises a strip of muscle at the front of your body, which in the overall view of your entire body is quite small. On the other hand doing an exercise such as a squat will utilise a huge amount of muscle in the body, causing the metabolism to increase much more and you’ll lose more body fat. So please avoid crunches, they are a waste of time.

**Jogging**: In a study that compared aerobic exercise(read jogging) and diet with a group who just did the diet over a 12 week period, the exercise group trained 5 times a week with 45 minutes of aerobic exercise. Those doing exercise and diet showed no difference in body fat levels after 12 weeks than those just dieting.

It kind of begs the question of why the hell have we been jogging for all these years in the search for fat loss? But when you think about it, this study is absolutely right. Think about all those people who spend months and months doing their aerobics classes or jogging every day and actually not changing shape at all!

This program will not ask you to do any low intensity aerobic workouts. Your cardio routines are really very different to what you have done before.

**Spot Training**: This is the big brother of the crunch explanation above. You can’t reduce fat from an area of the body simply by exercising that area. The body simply does not work that way.
So all the abdominal crunches you have been doing will not reduce fat from your belly! In the same way you can’t do exercises for the back of the arms hoping to tone up the back of the arms.

**Low Calorie Diets:** I don’t count calories, never have done, I don’t ask my clients to either. Cutting calories below a certain level makes your body want to hold on to long term energy resources, i.e. FAT, the very substance we are trying to lose. Excessive calorie restriction is not a long term solution, and more often than not you end up with more fat than you started with.

**Low Fat Diets:** A study compared a low carb diet and a low fat diet with the same overall calorie intake. Those with a low carb diet, and obviously higher in fat content, lost more fat from their body. No need to cut fat, just make sure the fat you eat is not from cookies and cakes (no surprise there). However the fat in eggs is good fat.

**Missing Meals:** Skipping breakfast or lunch is very common. Problem is, your body goes in to this starvation mode when you do skip the meal, holding on to the fat reserves in your body. NEVER skip breakfast, lunch or dinner, or even the snacks between meals. Consume something every 2-3 hours of your waking day.

**Diet Pills:** Most of these pills are nothing more than a method of increasing the body’s core temperature. They are not a long term fat loss solution, once you stop popping the pills as you cannot afford them any longer, the fat will come back as your diet will still suck.

**Power Plates:** Vibration technology is (or was) the latest all encompassing solution to peoples fat loss woes. Unfortunately most people who bought the machines are discovering the effectiveness and novelty of these machines wears thin very quickly.

**Fasting:** Last but not least, good old starvation. I’ve come across plenty of people who will go on a 7 day fast, consuming nothing but water and some nasty soup. As mentioned in two of the other items above, simply cutting calories means the body will do everything in its power to hold on to long term energy source. Fat. It will break down high energy consuming substances in the body, i.e Muscle and make your metabolism even slower than it was in the first place. DO NOT damage your fat burning system any more with fasting. Short term weight loss will lead to fat gain and a more ugly body!
So what will this program ask you to do to help you lose body fat?

Well a simple diet of exercises that challenge a large amount of muscle mass, working them hard to boost your metabolism. The cardio routines are High Intensity Interval Training (HIIT) sessions designed to boost your metabolism and increase your cardio vascular capability. You’ll get to the top of those stairs without being out of breath.

There will be a short section on nutrition later on, but in essence you’ll want to eat every 2-3 hours of your waking day, consuming only fresh fruit and vegetables, fresh meat, poultry or fish, and certain diary produce, plus drinking plenty of water.

The whole fat loss process is actually not that complicated, the hardest part is sticking rigidly to the program. However if you do manage to do this you’ll certainly see physical changes in your body shape that will make all the hard work worthwhile.
The Aims of Triple X Archery Conditioning

You Can’t Hit A Target You’ve Not Hung!

The lack of targeted archery exercise programs means that many archers simply go to the gym and jump on the first weights machine or piece of cardio equipment they have always trained with. Whilst this approach is adopted by the majority of gym goers, it is important for you to understand why this is NOT a good idea for archers.

My principle reason for producing this program was to assist my coach, Alistair Whittingham, with training programs that he can provide to his other archery clients.

In the long conversations I have had with Alistair and having carefully analyzed his many videos on performance-archery.tv it is clear whilst your shooting itself will be good conditioning for the specific skills of picking up a bow and shooting it, the challenges experienced by many competitive archers is their physical condition in order to perform shot to shot for the entire round!

So what is this program really for if we are not going to necessarily target archery specific muscles? Well in all honesty we are going to make you work better as a whole. The aim is to improve your overall strength, flexibility, mobility, functional ability as well as cardio vascular conditioning.

In doing this automatically your body will be better prepared to shoot technically sound shots time and time again.

Commonly our limitations in shooting form are created by other lifestyle factors, for example the office worker who shoots at the club night, and on the weekend will more than likely have certain postural traits that inhibit certain muscles in the body, as well as over activate muscles in other areas.

In terms of shooting we end up using too many of our small stabilizing muscles to do the work of a prime mover, this makes us fatigue quicker and produce inconsistent form.
**Strength:** Improving your strength is not necessarily about creating large bulky muscles. The improvements in strength will be created by encouraging your body to function correctly for all the things you ask of it, if that is lifting a box over your head, pulling an arrow out of the target or picking a heavy object from the floor.

**Flexibility:** Flexibility is an odd thing, whilst it seems we desire to be ultra flexible, many top athletes function with a distinct lack of flexibility. All this arm swinging, stretching and mobility routines you see people doing before starting to shoot many NOT be the best thing we should do for our body. The flexibility routines I have placed in this program do go against traditional thinking for archery flexibility training.

**CV Health:** Cardio Vascular fitness is another area I believe is important but massively misunderstood for the majority of the population. Most people’s first reaction to needing to lose any excess body fat is to go jogging.

Most people following a set of workouts for archery go jogging for an hour 4 or 5 times a week.

I believe, and can prove, this is counterproductive in many cases, and NOT the best course of action. The body needs to be able to handle short bursts of effort for each time we pick up the bow and shoot it. Even though the effort seems minimal our body does need to recover fully from this effort before we start the next shot.

We are going to concentrate on making each of these three elements come forward as one, with short but very effective training programs that will improve your functional strength as a whole, improve mobility and move you forward really very quickly with your cardio vascular fitness.

Whilst I will inject a bit of science in to this program, I will concentrate on explaining the exercises and give you clear reasons why each element is important.

The program will last for 8 weeks and you’ll be required to do all the exercises I ask you to. Doing this program in a half baked manner will not produce the results you are looking for.

In terms of results this is NOT a specific fat loss program, however if you have body fat to lose I’d be surprised if you didn’t lose a lot of the stuff over the course of the next eight weeks.

The real results you will see will be in terms of ability to perform over the course of a weekend’s tournament. To track these results is not always easy, but I will ask you to journal for the duration of the program and get you to report on your performances during tournaments and practice sessions to see the changes occur.

Archery is unlike many other sports where you can have certain benchmark figures you can test yourself against, for example the vertical leap, speed through a set distance or reaction times.

Archery is different as it is predominately about self report, however the scores you make should make a move forward if your overall conditioning improves.
This program is fairly light on equipment requirements, however I do recommend some basic items to all of my clients that are useful for any training program we set. You do not necessarily need to have a gym membership, but if you do, your biggest asset is space.

So here is what you'll need for equipment:

- Stability ball (55cm or 65cm)
- A stretch band, the heavier the better.
- A good quality exercise mat for some of the exercises and mobility routines.
- A set of adjustable dumbbells (up to 10kg, 22lbs)
- Medicine Balls 2 or 3 kg for females 3 or 4kg for males (these are optional items)

For the cardio training you can take your choice of cardio machine, or simply running or cycling outside.
The problem with most training programs not designed directly by a true fitness professional is the lack of direct correlation to your posture and mobility. For example, one of the most common faults within training programs ripped out of a magazine, or made up yourself is working on what I would call the mirror muscles, these are the parts of the body we can see when standing in front of the mirror.

For guys this tends to be an over emphasis on the abdominals, biceps, chest and thighs. The bench press and ab crunch exercises are probably the most over used exercises in training programs.

Insisting on including 100's and sometimes 1000's of crunches in to a routine is a common mistake. Yes the abdominals do need attention, but not any more than other muscle in the body and certainly not at the exclusion of some much more important exercises.

When we don't identify what is going to help us improve our posture and function, and look to purely satisfy what you see aesthetically in the mirror we run the risk of having injuries that will put a stop to your shooting practice as well as your physical training.

Think about the times you have tried jumping in the gym before and doing a bunch of exercises. That dodgy knee, the low back pain, neck and shoulder strains are the complaints most commonly experienced, so we get the hell out the gym because we think this exercise stuff is not for you.

The real reason for this is down to the exercise selection and the lack of directed mobility plan to correct certain postural traits you have.

With this in mind the first step is to identify which areas on you need to focus both your exercises and probably more importantly, your mobility programs.

We have set a simple set of quick postural tests that you will perform before you start which will identify areas of weakness, inflexibility and postural imbalance.

On the next page you'll see the 5 short tests and depending on what the results are will mean you will include or discount certain elements of the program of over the next 8 weeks. Whilst this may mean some aspects of this program are redundant for you, this is not a problem as we really need to get across the point we are looking to improve your function by avoiding the "one size fits all" approach to fitness programs.
Archery Fitness Self Assessment

If You Are Not Assessing You Are Guessing!

Before training any of my clients for any type of goal I complete a full Kinetic Chain Assessment (KCA). The KCA is far removed from the normal assessment techniques utilized by the majority of the gyms and personal trainers around the world. For example we don’t use a sit and reach flexibility test, or throw you on to a treadmill running you as hard as you can until you pass out, or lose the contents of your stomach. We also don’t use one rep max style strength tests to see which part of your body breaks first.

None of these tests give us any useful information for the relatively de-conditioned person, or even the conditioned athlete to be honest!

The KCA establishes which areas the client must focus on in their routines and which areas to avoid. This enables us as their coach to help them see the most amount of improvement in the shortest time, whilst ensuring we reduce the chances of injuring the client. In other words, it helps establish a plan of action.

The following assessment is a variation on the KCA that doesn’t require the presence of a trained fitness professional to identify your needs. Each test outlined below will establish which aspects of the training plan you will follow and which parts are not necessary for your development at this stage.

What Is This Posture Thing Anyway?

We hear and read so much about the importance of good posture, but what does this mean and what is truly good posture? Many people think about posture in terms of how we sit at our desks at work. However good posture in the standing position is key to minimizing the amount of physical resource we use to maintain that position, this has an obvious link to our shooting position.

It is common for people to struggle holding a standing position for extended periods, such as at a concert or taking a walk down the high street on a Saturday afternoon. Common complaints are usually along the lines of sore knees, lower back pain and tightness in the neck.

For the archer this is a key aspect to our sport given that we are on our feet for the majority of the weekend. If you are able to minimize the use of smaller spinal stabilizing muscles to facilitate good standing posture and start utilizing the larger postural muscles, such as the glute muscles, you’ll be able to maintain a good strong and stable platform.

So the following tests are designed to identify certain postural faults, which could mean a restricted range of motion at a joint, or the inhibition of certain muscles creating faulty movement patterns.
Once we have done these test we can quickly see what sub routines you’ll need to perform in order to see progress.

Lets start with a test to establish upper back and head and neck posture.

**Standing Upper Back Posture Assessment**

- Stand with your back against a wall and your feet about 12 inches from the base of the wall.
- Place one hand in the small of your back and press your low back against your hand.
- If your posture is normal, your buttocks, upper back, and the back of your head will be in contact with the wall.
- Your head should remain level. If you have to lean it back to make contact with the wall, you are cheating the test (shame on you for cheating).

The inability to make these contacts, especially the inability to make contact with the back of your head, is usually an indication that you have too much curve in the thoracic spine (upper back), a forward head position, or a combination of both. Failure on this test will mean your shooting form, in particular at full draw will likely show you are not using the rhomboids to hold the position at full draw.

You’ll be using smaller muscle in the shoulders and arms to hold and you’ll more than likely get stuck trying to draw through the clicker, or for the compound archer struggle to keep the scope from dropping through the bottom of the spot.

Rhomboid activation is often inhibited in people who spend many hours in front of a computer at work, in the worst cases the rhomboid activation is nonexistent and even at full draw the upper back looks rounded.

If this test is a failure you’ll want to add the FLATTER BACK sub routine to your program, which will include stretches to inhibit tight chest muscles and activate the rhomboids and scapular stabilizing muscles.
Shoulder Rotation Test

One of the areas in archers that most commonly get restricted and injured is the shoulder rotators. The shoulder is a very complex structure that must have an enormous range of motion. The combination of muscles required to perform both gross powerful movements as well as fine controlled movements is mind blowing. Without giving you an advanced lecture on anatomy and biomechanics it is impossible to give you are full account of the factors at play here.

A simple way to establish if you have restriction in the shoulder rotators is to perform the following little tests.

- Lie on your back and place one hand in the small of your back as you did for the upper back posture test and press the lower back down on your hand. This prevents cheating the test by increasing the spinal curves.
- Lay your arm on the floor perpendicular from the body with the elbow bent to 90 degrees.
- Rotate the shoulder backward and attempt to lay your forearm on the floor.

If you can’t lay the forearm flat on the floor without using excessive force, external rotation is restricted.

Here is a quick test for internal shoulder rotation.

- Assume the same starting position as you did for the external rotation test.
- This time attempt to lay the forearm on floor by rotating the shoulder forward, again without using too much force.
- Normal internal rotation of the shoulder is 80 degrees. So the arm should rest just above the floor for normal rotation.
Restriction in either of these areas is fairly common, in particular the external rotation because the internal rotator muscles are tight. The internally rotated posture is found where people are spending hours at a computer or driving.

Another quick test is to stand in front of a full length mirror with your feet at shoulder width apart, relaxed shoulders and look straight in to your own eyes in the mirror.

Now look in the mirror at your hands. Without moving, how many knuckles can you see on each hand, in the worst case you'll see the entire back of your hand showing you to be excessively internally rotated. The ideal posture would be to see just the knuckle of the thumb and that’s it.

If you don’t pass these tests, I would suggest you add the FULL ROTATION sub routine in to your program.

**The Bucket Pelvis Assessment**

Moving down the body we start to look at more of the problem areas around the glute/hip areas. In the most simplistic way to describe this, imagine your pelvis as a bucket with four handles pulling at it to hold it flat so you don’t spill any water.

On the front of the body, the bucket is being pulled down by your hip flexor muscles, and pulled up by the abdominals.

On the back of the body, the bucket is being pulled down by your glutes(butt) muscles and pulled up by the lower back muscles.

The ideal is for the bucket to remain in a balanced flat position in normal standing where you wouldn't spill any water out of the bucket. Commonly the bucket is being pulled down by the tight hip flexors at the front of the body. We can test to see how tight the hip flexors are by performing a test called the Thomas Test:
The Thomas Test

- Lie on your back and pull one knee to your chest with the other leg straight.
- The ideal is for the straight leg to rest flat on the floor without any effort to hold it there.
- In a positive test (showing tightness), the straight leg will be raised from the floor.

This is a very important test as tight hip flexors are a common limitation for archers who also do a great deal of sitting as part of their daily job. Tight hip flexors will restrict hip extension and over emphasize the use of the lumbar spine region, causing that lower back pain when standing for long periods.

This creates a significant area where our resources are used up unnecessarily causing fatigue later on in a competition weekend. This reduces our ability to perform the skill we have worked so hard to perfect.

Staying with the bucket analogy, we want to see if your glutes and abdominal wall is working effectively to pull your bucket back to a level position.

Failure of this test would suggest including the BUCKET TILTING sub routine

We also want to test Glute (butt muscles) activation to pull the back of the bucket down. The glutes are a major postural muscle that in many people is inhibited to some degree. Spending hours of your day in a seated posture means the glutes are rarely activated, so they kind of forget how to function.

Coupled with the other aspects around the hip area we have already tested and discussed this inhibition plays an important part in why many of us cannot stand up for long periods without getting fatigued.
GLUTE ACTIVATION/STRENGTH TEST

For this test I you may need the assistance of a friend to ensure you remain in the correct position.

- Simply go on to hands and knees, with your wrists directly below your shoulders and your knees directly below your hips.
- Start by bracing your midsection lightly and then lift one leg off the ground and straighten the leg so it is in line with your torso.
- You must ensure that your torso does not twist to compensate for the movement.
- If you cannot get to the straight position initially without twisting your torso or buckling in the lower back then the glutes are not working optimally.
- Hold the position for as long as you can without letting the leg drop, if you start to feel discomfort in the lower back then you have failed the test.

If you need to twist or rotate the leg, or the leg drops below the straight line then you have failed the test.

If you can hold for 30 seconds without any of these faults then you have passed

If you failed the test then add the BUCKET TILTING sub routine in to your overall program.
Abdominal/Core Strength Test

This is a simple test for your abdominal strength and coordination. This is not purely about the superficial rectus abdominus muscles (i.e. your six pack) but also the deeper layers of the core including the internal and external obliques and the transverse abdominus, which make up a deep mesh of muscle fibers around the midsection that create strength and stability to ALL the movements your body makes.

- Lay on your back with your hip bent to 90 degrees and feet off the floor.
- Place one hand in the small of your back and press the lower back firmly down on your hand.
- Slowly lower your feet to the floor without reducing the pressure on your hand.

If you are unable to lower your feet without reducing pressure on your hand, your hip flexors are dominant in the movement. This means that the abdominal muscles are most likely too weak.

I'll immediately qualify this by saying this does not give you license to do thousands of crunch based exercises.

Failure of this test will mean you'll add the CORE STABILISATION sub routine in to your overall training program.

Now you may very well find that you failed ALL the tests, and I know we all hate failing tests, however these are areas that so many people who are not archers have problems with. I see people every day of the week with dysfunctions similar to this, but we can quickly and easily make significant gains in postural integrity with the targeted stretches and exercises performed in a very specific way.
**Additional Measurements**

Whilst it is important to improve function and posture, we also want to establish how these programs are improving your overall physique too. You probably would like to see changes in your body shape, levels of fat reduced and have a better feeling of aerobic conditioning too. So establishing some base line figures for yourself so you can see how you improve over the 8 week program is a good idea.

The first thing I want to ask you to do is record your weight. Now I am going to stress that this is NOT the primary indicator you'll use. It is not unusual for us to see little or no actual "weight" change but see substantial changes elsewhere.

So you will not need to jump on the scales every day to see if you have made any changes here, although I will ask you every 7 days to take a new reading.

However, we will place more emphasis on the circumference measures I'll ask you to take.

**Circumference Measurements**

This is the distance around 4 points on your body to see how your size changes over the duration of your program. The 4 points are as follows:

**Chest:** This is the distance around your chest at the largest part.

**Waist:** For accuracy and consistency I recommend taking the measurement from your belly button height.

**Hips:** Take a tape measure around the largest part around your butt and upper thighs.

**Thighs:** Once again take a measurement around your right thigh at its largest part.

All the measurements are recorded in centimeters (but can be done in inches if you prefer)
PHOTOS

Finally I recommend getting two photos taken. One from the front view standing with your hands by your sides, the 2nd showing a side view, again with your hands by your sides. Preferably, these should be taken of you wearing your normal sports clothes, and that shows your shape and size.

You'll find space on the Program Record Sheets a space to record these measures.

The next step is to work out what your training regime will look like, and make it fit in to your training schedule.
Triple X Conditioning

Workouts

Less Chat, More Action.

The actual programs are quite straight-forward, they will not mean you are stuck in a gym for hours on end, most of the standard routines should take you less than 40 minutes, the sub routines are all between 5 and 10 minutes, the interval based routines take less than 20 minutes, and your total weekly commitment is barely 3 hours.

Less than this amount and the impact of the program is really not going to be seen, more than this and you will struggle to fit it in with your normal skill based training session at the archery club, have a normal job and have a family life too.

Lets start with the 2 standard routines that you'll be following for the first four weeks. After four weeks we'll move you forward with a revised program to account for the adaptation you will see after the first phase.

These standard routines are designed to improve your body's movement patterns as a whole, as well as provide the basis for boosting your metabolism and get you burning some of the excess body fat you may have on your body too.
## Standard Workouts – Phase 1

### Standard Workout 1

<table>
<thead>
<tr>
<th>Exercise</th>
<th>Sets</th>
<th>Reps</th>
<th>Tempo</th>
<th>Rest</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1: Bodyweight Squats</td>
<td>3</td>
<td>15</td>
<td>402</td>
<td>30</td>
</tr>
<tr>
<td>A2: Flutters</td>
<td>3</td>
<td>18</td>
<td>402</td>
<td>30</td>
</tr>
<tr>
<td>B1: Step Up</td>
<td>3</td>
<td>12</td>
<td>402</td>
<td>30</td>
</tr>
<tr>
<td>B2: Single arm Overhead Press</td>
<td>3</td>
<td>15</td>
<td>402</td>
<td>30</td>
</tr>
<tr>
<td>C1: Incline Push Up</td>
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<td>15</td>
<td>402</td>
<td>30</td>
</tr>
<tr>
<td>C2: Russian Twists</td>
<td>3</td>
<td>30</td>
<td>202</td>
<td>30</td>
</tr>
<tr>
<td>D1: Plank</td>
<td>1</td>
<td>3</td>
<td>15secs</td>
<td>15secs</td>
</tr>
</tbody>
</table>

So what does all this mean?

The format of the training programs is easy to follow. All the exercises come in pairs, you complete ALL the repetitions and sets for each pair of exercises before moving on to the next pair. For this program you’ll do 3 sets of each exercise and between sets of exercise take approximately 30 seconds rest.

The rest period is not the most important aspect of the timing of the program, basically just keep working through the program to completion without sitting around waiting between sets for long periods.

However I do want you to focus on the movement "tempo" (speed) as closely as possible, in particular over the first four weeks. In general I want you to complete each movement in a controlled and steady way. Depending on the exercise you want to control the descent phase of the movement as much as possible, as much as 4 seconds for the descent. It is too easy just to let gravity take control and the movement becomes jerky and uncontrolled. On the lift phase you can do this a little quicker, aim for around a 2 second lift.

Equally so take care to watch the form demonstrated on the videos and make sure you understand how controlled the movement pattern and speed is described.

Any monkey can pick up the biggest heaviest weight in the gym and do a bicep curl by using momentum and engaging lots of other muscles to perform the movement. However, doing it in this fashion will achieve little for the purposes of this program where function and performance enhancements are the key, not proving how strong you are.
You have two different workouts which you’ll alternate during the week, here is the 2\textsuperscript{nd} routine.

**Standard Workout 2**

<table>
<thead>
<tr>
<th>Exercise</th>
<th>Sets</th>
<th>Reps</th>
<th>Tempo</th>
<th>Rest</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1: One Leg Toe Touch</td>
<td>3</td>
<td>15</td>
<td>402</td>
<td>30</td>
</tr>
<tr>
<td>A2: YTWL</td>
<td>3</td>
<td>24</td>
<td>402</td>
<td>30</td>
</tr>
<tr>
<td>B1: Supine Hip Extensions</td>
<td>3</td>
<td>15</td>
<td>402</td>
<td>30</td>
</tr>
<tr>
<td>B2: Lateral Lunges</td>
<td>3</td>
<td>30</td>
<td>402</td>
<td>30</td>
</tr>
<tr>
<td>C1: Incline Flye</td>
<td>3</td>
<td>15</td>
<td>402</td>
<td>30</td>
</tr>
<tr>
<td>C2: Plank Knee In</td>
<td>3</td>
<td>30</td>
<td>202</td>
<td>30</td>
</tr>
<tr>
<td>D1: Slow Burpees</td>
<td>1</td>
<td>30secs</td>
<td>202</td>
<td>0</td>
</tr>
</tbody>
</table>
The Warm Up

The warm up routine described below must be done prior to every single workout. It does not take too long to complete, normally a maximum of 5 minutes.

It’s aim is not to stretch muscles, although this will happen by default, it is also not designed to warm you up (despite the name), again this will happen to some degree.

Instead the warm up is there to lubricate the surfaces of the joint articulations before you put it under load. The movements are carefully designed to compliment your body’s fundamental movement patterns, and to help wake up the muscles.

The other reason for the warm up is to get you mentally ready for the workout. So often my clients come to the gym, with excess baggage from their day’s work, the argument with their husband, or problems with the kids. The process of the warm up puts you in tune with your body and the movement patterns you are asking it to do.

Go through each movement doing at least 15 repetitions of each movement, before moving on to the next.

Start by doing a short range of motion, just taking it to the point your body will allow it to. You’ll find you can increase the amplitude of the movement as you do more repetitions.

If you feel particularly tight in a certain movement continue with more repetitions until you start to feel a little less tight.
Vertical Wood Chop

1. Start Position: Hold a medicine ball or light dumbbell with your arms extended overhead.
2. In one continuous motion bring the ball down in front of you like you are chopping wood.
3. You will have to bend at your knees to complete this.
4. Return to starting position and repeat.
Diagonal Wood Chop

1. Start by holding a medicine ball at knee level in a semi-squat position.
2. Rotate your trunk and extend your knees while raising the ball up towards the opposite shoulder. Keep your arms fairly straight during this movement.
3. Return to the starting position and repeat for prescribed repetitions.
4. Repeat with the other side.
Torso Rotations

1. Stand tall with feet about shoulder width apart holding a single light dumbbell with both hands just in front of you with arms bent to 90 degrees.
2. Keeping your hips and legs still rotate the upper body, neck and head to the left in a smooth controlled motion.
3. Rotate back immediately to the opposite direction, all the time keeping the hips and legs still.
Start by standing with your feet shoulder width apart. You can stand on a small step or on the ground. Support yourself against the wall or door frame.

Keeping your upper body perpendicular to the ground swing one leg forward and backward.

Do not swing your leg so hard that you can not keep your upper body from moving.

Repeat for 20 repetitions and repeat with the other side.
**Lateral Leg Swings:**

1. Start by holding onto a secure object and raise your outside leg out to the side.
2. In a smooth and continuous motion swing your leg back and forth across the front of your body.
3. Swing through your full range of motion but keep your upper body stable throughout the movement.
4. Repeat for 15 repetitions and then flip sides and repeat with the other leg.
**A1: Bodyweight Squat**

1. Start from a standing position with feet about shoulder width apart with your toes pointing forwards, put your arms out in front of you.
2. Squeeze your butt and abdominals. This is your start position.
3. Start the movement by pushing your hips backwards and keeping your weight on your heels at all times.
4. Keep looking directly ahead and not at the floor, dropping as far as you feel comfortable.
5. Pause for a 1 count at the bottom of the movement.
6. Push through your heels back to a standing position. Squeeze your butt and abdominals as you stand tall.

The key to this exercise is glute activation and re-educating your nervous system to recognize that the gluteal muscles are a primary muscle in the mechanism to stand up tall. Many (read almost ALL) of my clients come to me with glute dysfunctions of some magnitude, meaning that many basic movements such as walking or standing up and sitting down are using muscles not designed for these fundamental movements.

If you find this exercise difficult start by sitting on a low bench or step and standing up without using any external help, ensure you drive through the hips to stand, then simply lower yourself to the box again, staying in control of the movement at all times.
A2: Flutters

1. This can be performed laying over a stability ball, flat on the floor, or standing with your upper body bent forward.
2. The key here is to activate the muscles between the shoulder blades... The rhomboids.
3. Start with your arms straight out in front of you, your hands in a fist with your thumbs sticking out. Rotate your whole arm so your thumbs are pointing backwards.
4. Lift your whole arm so you squeeze your shoulders together at the top of the movement.
5. Slowly lower to start position.
6. Ensure you just move your arms and NOT to use your body to help with the lift.
Another exercise that is a regular in many of the programs I create for my clients. As with the gluteal muscles the muscles between the shoulder blades are often inhibited, so the primary focus of this is to wake them up a little.

By concentrating on getting the shoulder blades to perform the movement, rather than just the arms you’ll start to work the rhomboids. These are key muscles for shooting so it is essential you are utilizing them effectively. You may find it useful to get someone to lightly tap on the muscles between the shoulder blades, this will remind the nervous system which muscles should be working in this movement.

Over time you’ll find that your posture will improve automatically without you “trying” to bring the shoulders together
**B1: Step Up**

1. Find a step or a bench that when you place one foot flat on top of it your knee is bent to about 90 degrees.
2. From this starting position, push through the heel of the elevated foot and the toe of the trailing foot to step up.
3. Make sure you keep the abs tensed throughout the movement as you lift to a full standing position on top of the step.
4. Squeeze abs and butt from this top position before stepping down with the same leg in a controlled movement.
5. Alternate legs on each repetition.
6. Ensure that you do not simply “drop” back to the starting position. Keep control of the movement at all times.

Another important exercise to both wake up the gluteal muscles as well as get your pelvis aligned correctly. Focus on squeezing your butt at the top of the movement and control the movement all the way back down to the ground.

This will provide excellent ankle, knee and hip stabilization as well.

1. You can do this with a dumbbell or a resistance band. Start by standing with your feet shoulder width apart, place your foot on the band and hold the other end in one hand at shoulder level.
2. Put your other hand behind your back and lightly squeeze your shoulder blades together throughout the movement.
3. Starting with your elbows at 90 degrees press both arms straight up until your elbows are extended.
4. Return to the starting position and repeat for the prescribed repetitions.
5. Keep your abdominals tight throughout the movement and avoid arching your low back.

There is a reason why even guys should start with only a 1kg weight. It is more important for you to squeeze the muscles between the shoulders throughout the movement as well as focusing on the deltoid muscles (just at the top of the arm) to do the lift and less with the trapezius muscles (by the side of your neck), which tends to get over worked if you have bad shooting habits.
C1: Incline Push Up or Stability Ball Push Up

1. Normally the incline push up can be performed on a Smith Machine or squat rack, where you can adjust the height of a fixed bar.
2. Place your hands on the bar wider than shoulder width apart. Your body should be flat, do not let your butt lift.
3. Lower yourself by bending at the elbows, the right position will mean that the bar is between your chin and chest at the bottom of the movement.
4. To lift yourself back to the start, instead of thinking to lift, try pushing the bar away from you for proper muscle activation.
5. Ensure your body remains flat throughout the entire movement.

Optional Stability Ball Version

1. The correct position to start the stability ball push up is to kneel behind a stability ball, then push your upper body over the ball and walk your hands forward, so your thighs are resting on the ball and you are in a push up posture.
2. With your hands a little wider than shoulder width apart and your fingers facing forwards, you should have your shoulders directly over your hands.
3. Brace your midsection as you drop your upper body, bending at the elbows to 90 degrees and your head dropping between your hands.
4. Push through the hands back to the start position.

Obvious exercise but the purpose is to utilize the muscles of the shoulder blades and upper back to control the movement. Think as you drop down to let the shoulder blades sink together, opening up the chest region as much as possible. You’ll get both a good stretch as well as develop shoulder stability with this excellent exercise.
C2: Russian Twists

1. You’ll need a light dumbbell or medicine ball for this movement. Sit on the floor with your knees bent to 90 degrees and your heels resting on the floor.

2. Squeeze your abs slightly, and gently lean the whole upper torso backwards, doing so may mean your heels lift off the floor slightly.

3. Keeping the abs tense, twist the upper body, imagining you are going to place the weight behind you. Go as far as your flexibility allows.

4. Return to the starting position and immediately twist in the opposite direction.

5. Repeat the movement, keeping the abs tensed and back in a neutral posture.

About as close as you’ll get to a targeted abdominal exercise with me. Try to maintain a flat back posture and push your belly button up and out rather than sucked in. It is normal to feel discomfort in the hips during this movement, if you feel it in the lower back, sit up reset your position and start again.
**D1: Plank**

1. Lay on a mat with your elbows bent to 90 degrees underneath your shoulders.
2. Dig your toes on to the floor, and lift your body off your knees so that your body is in a flat position between your shoulders and your heels.
3. Squeeze your abs and butt to maintain the good position.
4. Hold for the allotted time, or split the time in to two attempts resting briefly.

The plank is all about developing good core stability and strength. Being able to perform a perfect plank without feeling any lower back pain will develop your ability to remain in a strong shooting position on any terrain. Field archers or if you regularly shoot in the wind, this one is for you!
Standard Program 2

A1: One Leg Toe touch

1. Start by standing on one leg raising the arm of opposite side to the one you are standing on.
2. Keeping your back straight and your leg straight bend forward letting your other leg come off the ground and behind you.
3. Bend forward from the waist, not the back, until a comfortable range of motion is reached. You may find you need to bend the standing leg slightly if your range of motion is limited.
4. Keep your eyes looking forward throughout the movement
5. Return to the starting position and repeat for the required reps before swapping to other leg and arm.

Looks easier than it actually is. The aim of this is to promote good ankle, knee and hip stability as well as activation of the gluteal muscles. Try driving the hips forward, squeezing the butt and locking out the midsection as you stand tall on each repetition to get the most from the exercise.
This exercise can be performed over a stability ball or on an incline bench. Start with really very light weights or zero weights, 0.5 - 1.0kg is normally enough to start for most people.

- Lay over the ball, with your stomach resting on the ball and your feet on the floor providing the balance. Hold a light dumbbell in each hand
- Y position: Lift the weights in front of you, with your arms straight, your upper body forming a Y shape. Don’t force the lift, keep the body and head still throughout the movement, lower the weight under control to the start position which is with the weights almost touching the floor.
- T position: Lift the weights perpendicular to the body, squeezing your shoulder blades together at the top of the movement, again keep the rest of the body still throughout the movement.
- W position: Push your hands forward to 45 degrees, near to the start position of the Y. Draw your hands back, bending at the elbow, squeezing the bottom of the shoulder blades together at the top of the movement.
- L position: Start with your arms bent to 90 degrees and your fists pointing at the floor. Push your elbows forward too. Simply rotate your arms keeping the elbow at 90 degrees. This one feels awkward for many people

Repeat each position for the required repetitions, without stopping between each position.

The YTWL exercise is probably one of the most useful shoulder mobilization exercises you will master. It incorporates all the movements of the shoulder complex, assisting in increasing your flexibility around this joint where many people are severely restricted.

Since incorporating it in to many of my clients routines we have practically eliminated frozen shoulder, trapped nerve and rotator cuff injuries.

Keep the weights light, even now after a number of years performing this particular exercise, I still only use a couple of kilos in each hand. You’ll not get any prizes for having the biggest rotator cuff muscles, however not injuring this sensitive area will certainly help you win a few tournaments instead.

I’ve kept the images nice and large for this exercise so you get a clear idea of what you need to do.
Y Position
W Position
L Position
**B1: Supine Hip Extensions**

1. Lie on your back on the floor with your knees bent and feet flat on the floor or on a low step.
2. Press your feet into the floor, engaging your butt muscles and start lifting your butt off the ground first, then lift each segment of your spine off the ground, starting from the butt and working up the spine.
3. Press until your hips are at full extension, but not arching the lower back to lift higher. This is a butt exercise and NOT a lower back exercise.
4. Return to the starting position by reversing the movement and repeat.

You’ll more than likely feel this in the back of the legs, in the hamstrings or calf muscles, this is just fine so long as you are contracting your butt muscles through the movement. As you put your feet on to a step or box, you may find that you start to feel a cramp in the leg, stop and lower the step if this is the case.
**B2: Lateral Lunges**

1. Stand tall with your feet close together and your hands out in front of you, squeeze your abs and butt slightly to maintain a good standing position, this is your start position.
2. Take a big step to the side keeping your upper body in an upright posture and your eyes looking forward, bending the knee and pushing your hips back. The trailing leg should remain straight.
3. Push through the heel back to a standing position.
4. Repeat on the other side, keep alternating for the allotted time.
5. Remember to keep your eyes looking forwards at all times, never at the floor.

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This tends to be the most rushed and under estimated exercise performed in my gym. The key to getting the most from this exercise is to feel a good stretch on the inside of the outstretched leg (which SHOULD remain straight). By pushing your butt backwards and keeping the weight on the heels, almost to the point of toppling over backwards, you’ll get both a good stretch and eliminate the pressure on the knees.

If you do feel pain in the knee reduce the width of the side step and focus on putting the weight through the heels.
### C1: Incline Flye

1. Lie back onto a ball with your body at an incline (45° or less) with a DB in each hand. (You may rest each DB on the corresponding thigh.)
2. Start position: Lie onto your back and bring the DB’s to your shoulders. Press the DB’s up above the chest with the DB’s almost touching and palms facing each other (neutral grip).
3. Keeping the elbows slightly bent, lower the DB’s out and away from each other in an arcing motion with hands aligned with the upper chest region.
4. Let your upper arm go parallel to slightly past parallel to the ground before returning to the start position.
5. To end the exercise, place the DB’s on shoulders, then onto thighs or at sides.
6. Remember to keep both feet flat on the floor at all times and keep the lower back in a neutral position.

---

For the first four weeks of your training this is 90% about stretching the chest muscles. Because many of us are tight across the pectorals from sitting at a desk all day this simple “Stretch by Stealth” will take away the tightness across the chest, make you stand up taller and reduce the pressure across the upper back area.

Because your shoulders are likely to be rounded and forward, the nerves and blood vessels going up through the neck and head area are likely to be constricted. This simple exercise will reduce this restriction, reduce your headaches and improve blood flow, and oxygen, to your brain... kinda useful wouldn’t you say?
C2: Plank Knee In

1. Start with your body in a push up position with your arms straight.
2. Your body should as flat as possible throughout the entire exercise.
3. Lift one foot off the ground and bring the knee as high as you can towards your chest. Make sure you squeeze the knee as high as possible, you’ll feel it in your abs a little.
4. Take the leg back to the start and then swap feet to do the same again.
5. Keep doing the movement for the entire period each time squeezing your abs a little.

One of my favorite core exercises. Try to keep the body flat throughout the movement maximizing the use of the glutes as you extend the legs back to the starting position.
D1: Slow Burpees

1. Start from a push up position with your body flat. Keep your abs and butt tensed in this start position.
2. Bring one foot forward, and then the other and stand up.
3. Make sure you stand upright squeezing abs and butt before reversing the movement.
4. Placing your hands back on the floor, taking one foot back and then the other back to the starting position.
5. Repeat as many times as the time allows.

Looks can be deceiving when you view the video for this exercise. It looks horribly simple but in reality it becomes quite tough after a few repetitions. Try to maintain good form throughout the movements, especially when standing at the last position. Drive the hips forward, squeeze your butt, lock out the abdominals and squeeze between the shoulder blades.
**Standard Stretches**

OK on to the stretching routine you need to be doing as often as possible during the 8 week program. Ideally you want to do this at least AFTER every workout that you perform. If you can do this last thing in the evening before you go to bed as well you’ll get the most benefit out of it.

There are a few things that are essential to getting a good stretch.

1. Stretch only when your body is warm.
2. Try to be as relaxed and unrushed as possible when performing stretches, there is little benefit in trying to force or rush a stretch, you’ll do more harm than good.
3. Hold each stretch for a minimum of 15 seconds.
4. As you stretch take big deep breaths and as you let out slowly, drop yourself further in to the stretch.

You’ll find many of these stretches a little awkward to begin with, this is because they are not the muscles we most commonly stretch. I do find that most people will stretch the same muscles over and over and because it feels easy and OK you end up continuing to stretch the same thing even more.

The problem is like doing the same old exercises over and over again you can create postural imbalances and inflexibilities in other areas by doing a stretch that is not necessary.

You’ll also find that many of these stretches are not those muscles we have used during the workout, which is in contradiction to many texts you may have read before that tell you need to stretch the muscles you have just used or are just about to use.

Whilst there is a place for maintenance stretches for the whole body, here we are specifically concerned with correcting postural issues.

So what follows over the coming pages is a detailed look at each stretch.
Wall Calf Stretches

1. Place the toes of one foot up onto the wall so that your heel is still on the ground.
2. Push your hips forward until a stretch is felt in your calf keeping your knee straight.
3. Hold for 15 seconds and then repeat with the other foot.

High heel wearers beware, this will prove particularly uncomfortable!! However it is an essential stretch to allow for better gait function (walking pattern) and has an overall impact of the posture of the whole body.

We often see inflexibility around the ankle reflected all the way up the body to the head and neck area.

As a side note, if you do wear high heels for work, can I suggest you take them off whilst you are sitting at your desk. No one can see your shapely legs at this point so you don’t need, or want them on at this point. Make sure your desk and chair is set so that you can place the flats of your feet on the floor with your knees bent to 90 degrees for optimal seating posture.
Kneeling Hip Flexor

1. Start by getting on one knee.
2. Slowly shift your hips forward until a comfortable stretch is felt on the front of your hip.
3. Hold this position for the recommended time and then return to the starting position. Repeat for desired repetitions.

Second only to the chest muscles for being commonly tight, the hip flexors are an area that NEED to be stretched. Much of our day is spent in a seated position, and the muscles deep in the hip often get overly tight and effect the overall posture around the pelvis. Normally this tight hip flexor pulls the pelvis down and forward, often placing excessive pressure on the lumbar region of the spine.
One leg Quad

1. Sit on the floor in a hurdlers position.
2. Lean back in the direction of your bent knee and support your upper body with your hands until a comfortable stretch is felt in your quadriceps (the muscles down the front of the upper leg).
3. Now squeeze your butt gently and the stretch will intensify
4. Hold this position for a count of 15 and then repeat with the other leg.

Whilst most people believe that they are tight in the hamstrings, commonly this is not quite true. We mostly see people stretching hamstrings too much and quadriceps not at all. Most people have long but tight hamstrings, and more stretching just makes them longer and tighter!

By stretching the quadriceps you can help relieve some of the tension built up around the pelvis as well as reduce the tension over the knee joint. Most people with knee issues commonly have tight quads.
Modified letter T

1. Lie on back with both knees drawn toward chest.
2. Slowly bring bent legs across body and then straighten the top leg until a stretch is felt in the lower back and hip area.
3. Hold for 20-30 seconds. Repeat as prescribed.
4. Remember to keep shoulders squared and flat on ground at all times.

As lower back stretches go this is quite a nice one to perform. This is actually more of a global stretch that stretches out most of the posterior chain that starts in the calf muscles and stretches everything in the back of the body up to the arm pit of the opposing arm.

Take the opportunity to draw in big deep breaths and relax in to the floor as you breath out, it’ll really open you up nicely.
**Lat Stretch**

1. Reach out and place your hands onto a wall.
2. Now bend forward so that your shoulders are below your hands.
3. Shift your hips backwards yet keep your hands on the wall.
4. Hold this position to stretch your back and shoulders.

You can actually see in this picture how I still have some lower back inflexibility and rotation in the pelvis. You can see the lump in the lower back. One of the aims of this stretch is to allow the arms to raise above the head without impacting lower back area.

Try lifting your butt up as you perform this stretch to get a nice stretch through the calves and hamstrings too.
Bent Arm Chest Against The Wall

1. Place arm on a wall or any vertical object and bend elbow to 90 degrees.
2. Lean forward with your body and turn slightly away from your arm until a comfortable stretch is felt in your chest.
3. Hold for the prescribed time and then repeat with the other side.

One of my favorite stretches. It serves the purpose of stretching the chest musculature as well as stretching the internal rotators of the shoulder complex, creating a MUST DO stretch for people working in an office all day.

I recommend to all my office based clients that they stand up every few hours from their desk and do this stretch against the nearest door jam or wall.

Don’t forget the breathing and relax in to the stretch further on the out breath.
Cardiovascular Routines

One of the most over used methods for fat loss and cardio conditioning is low level aerobic exercise. It is usually the one thing that everyone starts with for training and nothing could be more damaging for the body.

The problem with most low level aerobic training is that they require a lot of time to complete. Usually routines last for at least 45 minutes and it is often recommended to do this at least 5 times a week.

In addition to the investment in the amount of time to perform the routines, there are more than enough studies to support the fact this style of training is VERY Inefficient at producing noticeable fat loss or even cardiovascular conditioning. In both cases it is the workout equivalent of watching paint dry!

Thankfully there is a more effective way of completing your cardio training in much less time with far less impact structurally.

High Intensity Interval Training (HIIT) is great for both boosting your metabolism (i.e. fat loss) as well as producing substantial gains in cardiovascular conditioning as a whole.

I NEVER ask my personal training clients to go for a jog, or perform any cardio routine longer than 30 minutes, and subsequently I am not going to ask you to either.

There is a BIG caveat though, HIIT is quick, but it is not easy! In fact at times it is really hard work, but for a really finite time frame, so the pain is over super fast.

Rather than go in to more detail, it is probably easier if we dive right in and explain how the first phase of cardio routines works.

Cardio Routine 1

Preparation

Your choice of cardio mode is entirely up to you. However I would urge you to complete the cardio either outside, running or cycling as your first choice, 2nd choice would be in the gym on an exercise bike, 3rd choice again in the gym on a treadmill. Try to avoid the cross trainer style machines or the recumbent style exercise bikes.

The routines will take less than 15 minutes to complete, but be prepared to work hard for those 15 minutes.

The only caveat to this is making sure you are warmed up properly before really working hard, so you may want to spend an extra 2-3 minutes warming up before.

Warm Up
Your warm up will consist of the exact same method of exercise you will do for the actual workout. For the purposes of this description, we will describe it as if you were running/jogging outside.

*Warm Up 1:* Spend 1 minute walking swinging the arms and stretching the stride as much as possible

*Warm Up 2:* Minute 2 progress to a fast walk or jog stretching the stride as much as possible

*Warm Up 3:* Minute 3 is a light jog or comfortable run pace depending on your level. By the end of minute 3 you should feel warm and ready to go hard. Feel free to extend the warm up if you feel you are not ready.

**Workout**

Once you have finished the warm up you are going to immediately start the first interval.

You are going to run or jog for 30 seconds as hard as you can for the entire 30 seconds.

You must be ready to ease up after 30 seconds

Go back to a walk for 30 seconds

Then repeat the interval 9 times each time taking a break (active recovery) for 30 seconds

Once you have done the last interval you will start you cool down.

It is important that you push as hard as you can for the 30 seconds of effort, otherwise the exercise is not going to be beneficial.

**Cool Down**

This is a quick reverse of the warm up

*Cool Down 1:* Starting with 60 seconds of a comfortable jog/run, immediately after the last interval

*Cool Down 2:* Then 30 seconds of a jog/fast walk

*Cool Down 3:* Then finally 30 seconds of a normal walk.

As you go through each stage take control of your breathing and relax as much as possible. If you are on a treadmill take care when you turn to get off the machine.
Cardio Routine 2

Warm Up

Your warm up will consist of the exact same method of exercise you will do for the actual workout. For the purposes of this description, we will describe it as if you were running/jogging outside.

Warm Up 1: Spend 1 minute walking swinging the arms and stretching the stride as much as possible

Warm Up 2: Minute 2 progresses to a fast walk or jog stretching the stride as much as possible

Warm Up 3: Minute 3 is a light jog or comfortable run pace depending on your level. By the end of minute 3 you should feel warm and ready to go hard. Feel free to extend the warm up if you feel you are not ready.

Workout

Once you have finished the warm up you are going to immediately start the first interval.

You are going to run or jog for 60 seconds as hard as you can for the entire 60 seconds.

You must be ready to ease by the end of the interval

Go back to a recovery walk for 60 seconds

Then repeat the interval 5 times each time taking a break (active recovery) for 60 seconds

Once you have done the last interval you will start you cool down.

It is important that you push as hard as you can for the 60 seconds of effort, otherwise the exercise is not going to be beneficial.

Cool Down

This is a quick reverse of the warm up

Cool Down 1: Starting with 60 seconds of a comfortable jog/run, immediately after the last interval

Cool Down 2: Then 30 seconds of a jog/fast walk

Cool Down 3: Then finally 30 seconds of a normal walk.

As you go through each stage take control of your breathing and relax as much as possible. If you are on a treadmill take care when you turn to get off the machine.
Sub Routines

Earlier in the manual we established certain areas of dysfunction or postural imbalance. In this section we'll explain exactly what to do with this information. Each test relates to a sub routine that you'll need to include in your training program. These routines can be performed in isolation of your normal routines or done immediately after the standard exercise routines.

A little later on I'll explain how to incorporate them in to your training schedule.

Each one will contain a handful of exercises and a couple of specific stretches relating to the dysfunction. They will directly target the problem areas and work to correct the postural fault.

A word of warning, these exercises will feel awkward and at times uncomfortable, this is to be expected given that we are trying to reactivate certain muscles that are inhibited and stretch muscles that are overly tight or over used.

Stick with the exercises and you can see progress with these movement patterns quite quickly.
The Flatter Back Sub Routine

The purpose of this sub routine is to enhance the activation of the muscles of the upper back, namely the rhomboid muscles. These muscles basically pull the shoulder blades together on your back. They start on your spine in the thoracic region (if you imagine a hunchback this is basically the area) and attach to the side of the shoulder blade.

Your hunchback is the extreme example of lack of rhomboid activation. Correction of this posture and muscular dysfunction requires some simple activation techniques coupled with exercise to get the muscle working in the right way as well as stretching the muscles across the chest.

The Stretch Phase

<table>
<thead>
<tr>
<th>Bent Arm Pectoral Stretch.</th>
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<tbody>
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<td>1. Place arm on a wall or any vertical object and bend elbow to 90 degrees.</td>
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<td>2. Lean forward with your body and turn slightly away from your arm until a comfortable stretch is felt in your chest.</td>
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<tr>
<td>3. Hold for the prescribed time and then repeat with the other side.</td>
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Pretty much the only time I’ll advocate a stretch before an exercise is where we want to inhibit or make a muscle “quiet” to ensure it doesn’t take over in the movement patterns we are about to make.

To many this seems odd, until they see the effect it has. When you stretch a muscle it has the effect of turning off the activation of that muscle to a certain degree, which is why we never want to stretch certain muscles before shooting.

In this sub-routine we want to switch off (stretch) the pectorals, and then activate the rhomboids before working the rhomboids in a movement pattern.
The Activation Phase

Thoracic Tennis Ball Rolling

1. Preparation: Lean against a wall with your knees bent and your feet flat on the floor. Place a tennis ball between your shoulder blades on one side of the vertebrae and the wall.
2. Cross arms to the opposite shoulder to clear the shoulder blades across the thoracic wall.
3. While maintaining abdominal tension, move up and down the wall, rolling the ball up and down the side of the spine.
4. Stabilize the head in “neutral”.
5. Quickly roll mid-back area over the ball.
6. Make sure you do this both sides of the vertebrae for about 20 seconds.

The activation phase of this sub routine is designed to wake up the rhomboid muscles with some mildly aggressive muscle spindling techniques.

The idea is that when you place pressure against a muscle body, the body’s reaction is to contract that muscle.

By doing this before the exercises we are “waking up” the muscle so it reminds it to contract, essentially waking up the nervous system a little.
**The Exercises Phase**

**Standing Reverse Flyes**

1. Start position: Hold DB in each hand with neutral grip (palms facing each other) and let arms straight down (perpendicular to floor). Bend forward at about a 45 degree angle.
2. With elbows slightly bent and facing the ceiling, raise DB’s to shoulder level in semi-circular motion and squeeze shoulder blades together at top of movement.
3. Return to start position.
4. Remember to keep head in a neutral position.

Once we have activated the muscle it is now important to use the muscle in a movement pattern that will engrain a neurological firing order sequence in to the nervous system. So it is really important to have perfect form on these exercises.

For this exercise concentrate on moving the shoulder blades together and not swinging the arms back from the shoulder joint. I hope the distinction is clear.
**Stretch Band Draws**

1. Hold the ends of a stretch band. And stand in the same posture you adopt for shooting.
2. Draw like you would for shooting in to your anchor position. But squeezing the shoulder blades together
3. Then straighten the back arm to straight so your arms are in a T position.
4. Finally extend as far as you can leaving your arms at shoulder height, squeezing the shoulder blades together.
5. Return to the start position by way of reversing the movement.
6. Repeat for both arms for the required repetitions

About the only vaguely archery related exercise you’ll do in this whole program, however it is a key one to once again promote the use of the rhomboid muscles between the shoulder blades.

Focus on minimizing how much the tops of the shoulders and the trapezius are working, ideally they should remain relaxed as you draw the band back.
Finally a little bit of self massage, unfortunately not as nice as getting a full body Thai variety.

This is a method of trigger point massage, aiming to release some of the tight muscle fibers in the pectoral area.

This will help improve the condition of the muscle and allow a better range of motion around the shoulder joint.
The Full Rotation Sub Routine

Rotator cuff injuries are the nightmare of the archer. To give you the best explanation of what the rotator cuff muscles are and do, they are muscles that do NOT act as the primary power houses for the shoulder complex, that is left to the larger muscles of the chest, top of shoulders and under arm.

The rotator cuff muscles are designed to control and stabilize the shoulder joint range of motion. They are smaller muscles that commonly get tight or inhibited because of extrinsic factors rather than due to the archery form itself.

Now prevention is better than cure when it comes to the rotator cuff muscles and if you identified any restriction in your movements when performing the internal and external shoulder rotation tests, I would strongly advise including this sub routine in to your program.

The Warm Up

Traffic Cop Rotations

1. Start in a standing position with your elbows elevated to shoulder height and bent to 90 degrees. One hand should be directly up, and the other pointing to the ground.
2. Start slowly by rotating at the shoulder, swapping the hands from high to low and low to high.
3. As you feel the shoulder get warmer gradually increase the speed of the movement, but only go as far as your shoulder will comfortably go.
The Exercises

Side Laying External Rotation

If you failed the first test for external rotation

1. Lie on side opposite of working arm.
2. Start position: Grasp dumbbell and flex elbow at 90° keeping elbow in at side. Forearm should be slightly below parallel to floor.
3. Rotate arm outward keeping elbow at 90°.
4. Return to start position.
5. Remember to keep elbow firmly secured to side. You may put a rolled towel between the elbow and side to facilitate rotation and secure form.

You’ll be surprised how quickly your shoulders will start to fatigue on this exercise showing you how small these muscles are and how tight underused they become. Stick with having little or no extra weight to start with to get the number of repetitions in.
Internal Rotation Exercise

If you failed the second test for internal rotation

1. Sit on a ball or bench and pin your elbow at your side.
2. Rotate your hand out away from the body and grab your band.
3. Rotate your hand back in holding the band and keeping your elbow pinned at your side.
4. Repeat for the desired repetitions and make sure that your elbow does not move during the movement.

It is easy to start using the wrong muscles with this particular exercise, keeping the elbow tight in to your side will eliminate most of this. It is normal for the muscles to fatigue quickly on this exercise, given the nature of the muscles involved.
The Stretches

Internal Rotator Stretch

If you failed the first test for external rotation

1. Starting position: Stand a toning bar on end and rest your hand on top of the bar.
2. Lean forward keeping your elbow level with your hand and your back flat.
3. You should feel a stretch in your chest muscle. Hold for desired time.
4. Repeat with other side.

As with all the stretches you perform try not to force yourself in to stretching further, the key is to relax in to the stretch instead. This means taking a deep breath and as you exhale, relax in to the stretch further. This has the effect of allowing the muscle fibers to relax rather than simply stretching ligaments at the joint, which is generally where most people end up stretching when they force a position.
Scapular Wall Slides

1. Start by standing flat against a wall with your arms against the wall at shoulder level.
2. Proceed to slide your arms up and towards the ceiling. Maintain contact with the wall at all times.
3. If your arms start to pull away from the wall then that is the end of your range of motion for now.
4. Keep your back flat against the wall during this movement and work on increasing your range of motion.

This is actually more like an exercise by stealth rather than a stretch, however, it is a highly effective stretch at that. This is another exercise/stretch I commonly prescribe to office workers, as this helps to open up the chest area, get the shoulder blades to come together and stretches the internal rotators all in one movement.

It WILL feel awkward to start, but as you do more it does get easier.
The Bucket Tilting Sub Routine

In order for us to correct the posture and inhibition around the hip joint, we need to focus on activation of the gluteus muscles, for this you’ll sometimes need to be quite aggressive to re-awaken a seriously inhibited glute muscle.

The exercises are a combination of both muscle activation and stretch at the same time, for some these exercises will prove challenging, especially if you have severely tight hip flexors. The stretches help inhibit the muscles which are working much too much.

The Stretches

<table>
<thead>
<tr>
<th>Lumbar Spine Rocking</th>
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<tbody>
<tr>
<td>1. Lie on your back and bring both your knees to your chest.</td>
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<tr>
<td>2. Pull on the back of your knees towards your head until you feel a stretch in your back.</td>
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</table>

Not exactly rocket science this one. We simple want to stretch the lower back muscles so try to pull your upper body up as much as possible to feel a good stretch. If we can quiet down these lumbar spine muscles we can drastically improve the function around the sacrum and pelvis.
**Psoas Stretch**

1. Start by placing one knee on the balance disc with the foot on top of the stability ball.
2. Your other leg should be bent 90 degrees at the knee with your foot flat on the floor.
3. Slowly slide your foot on the floor forward and lean with your upper body towards the floor until a comfortable but moderate stretch is felt.
4. Return to the starting position and repeat or hold for desired amount of time if you would like.
5. Repeat with the other leg.

This is quite an intensive stretch for the hip flexor muscles. If you find this particularly painful replace initially with the hip flexor stretch from the standard stretches routine.

Essentially with these two stretches in this sub routine we are inhibiting the muscles that impact the function and posture of the pelvis. By making these muscles quiet we can massively improve the likelihood that the gluteal muscles will start functioning much more readily.
The Activation

Tennis Ball Glute Activation

1. Sit on the floor with your knees bent to 90 degrees, and your hands behind you.
2. Place a tennis ball under one side of your butt.
3. Using your feet and hands to stabilize and adjust the pressure, roll the ball around the butt quickly.
4. Do this for about 30 seconds on each leg before doing any of the following movements.

Strange, but this works surprisingly well to “wake up” the butt muscles. You can actually buy spikey rubber self massage balls that achieve the same results.

Try not to do this too slowly as you’ll diminish the effect, you really need to get in to the meat of your butt, but not in between the buttocks... no accidents please!

This will sound really odd but you can get a partner (someone you know well) to assist with this activation with some fast kneading of the glutes. This is exactly the process we use with our personal training clients to get proper glute activation!
Front/Back Leg Swings

1. Start by standing with your feet shoulder width apart. You can stand on a small step or on the ground. Support yourself against the wall or door frame.
2. Keeping your upper body perpendicular to the ground swing one leg forward and backward.
3. Do not swing your leg so hard that you cannot keep your upper body from moving.
4. Repeat for 20 repetitions and repeat with the other side.

This is the same movement as the one we use as a warm up movement. It is best to imagine that the ball and socket joint of the leg in to the pelvis should be the part that is swinging. Common faults here is when the pelvis swings too.

You want the muscles in the butt to activate as you swing the leg back, not the lower back.
The Exercises

**Bird Dog**

1. Start in a four point position with your hands and knees on the ground.
2. Proceed to kick your leg back and up until you reach full extension.
3. Squeeze your glute muscle while performing this movement.
4. Repeat with the other leg.
5. For a more advanced movement you can attach an ankle weight around your leg.

This is almost an activation part too, however we want to squeeze and hold the position using the muscles in the butt and not in the lower back. Keep the movement slow and controlled in ensure correct activation of the glutes!
**Split Squats**

1. Start by standing in a split leg position, with your front foot flat on the ground, and the other directly behind with your heel slightly elevated.
2. Slowly lower yourself to the ground by bending your front knee and dropping your back knee to the ground. You should aim to bend the front knee to 90 degrees.
3. Once you reach the bottom straighten your legs to the split leg position.
4. Repeat for the stated repetitions and then repeat with the other leg for one full set.

This final exercise is a combination of activation, stretch and exercise all rolled in to one. It is normal you’ll feel this working (stretching) the hip flexor muscles of the trailing leg before you feel it the muscles of the front leg.

To get the full benefit of the movement, try squeezing your butt at the top of the movement. Common faults are letting your upper body fall forwards or putting pressure on the toes of the front foot. Try to keep the weight on the heel of the front foot at all times.
**The Core Stabilisation Sub Routine**

The core is probably the most misunderstood concept in health and fitness. For many trainers the core is exercised by doing crunches, or work on a stability ball. Really this is too simplistic a view on a complex subject.

Core stability relates to the bodily region bounded by the abdominal wall, the pelvis, the lower back and the diaphragm and its ability to stabilise the body during movement. Pretty much every movement we make engages the core musculature in some way. However where dysfunction occurs, it is normally when the core is engaged late and weak in a movement pattern.

First of all we will not be performing crunches, we are looking to stabilize and strengthen the core by performing some progressive exercises until failure, the more often you perform the routine the further through the routine you'll get.

**The Exercises**

**Plank 10 seconds**

1. Start by placing your forearms on the ground kneeling, then simply lift your knees off the ground to form a plank with your forearms and feet.
2. Hold this position keeping your body parallel to the ground for the required time.
3. Ensure you tighten your abs to secure the position and to stop the lower back from dipping.
Side Plank Lifts x10

1. Lay on the ground on one side. Raise your body using one forearm and support it in this raised position.
2. Lower your body and repeat for 10 repetitions on the other side.
3. Remember to keep your head, neck and body in a straight line.

The first time through this will feel awkward as the body will not know which muscles it must use to perform the movement. There will be shaking and wobbling!
Supine Elbow Bridge 10 Seconds

1. Lay on your back and place your elbows under your shoulders and your heels pushed in to the ground.
2. Lift your hips off the ground, squeezing your midsection and glutes as you lift.

This is a difficult exercise once again to get right, focus on squeezing the butt as much as possible to hold the position.

Once you’ve completed the three exercises take a rest for one minute.

Then repeat the series of exercises, but this time increasing the time held by 10 seconds, and changing the side plank lifts to just a single side plank hold for 10 seconds each side.

On each repeat increase the timing by 10 seconds up to a maximum of 40 seconds on each position.
Recording Your Workouts

In your package you'll find a document called "Archery Workout Record Sheet Phase 1", print off a copy of this document. This is where you'll record your workouts, doing this is very simple.

As you complete the workout, simply write in to the corresponding box how many repetitions and what weight you have used. For example 15/- means 15 repetitions with zero weight, 15/3 means 15 repetitions with 3kg of weight.

The main reason to record you workouts is so you can check to see what you did on the previous workout and you can either pick the same weight or something heavier if you found the exercise too easy.

On the subject of weights, you need to be selecting a weight that is light enough to complete all the repetitions of each set with good form, but not so light that you are able to perform more than 1 or 2 repetitions more in the set.

I want to emphasize the form of each exercise before anything else, so please keep the weights down for at least the first 4 weeks, to allow the body to adapt to this training stimulus.

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<th>Work</th>
<th>A1</th>
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**Lifestyle Adaptation For The Athlete Archer**

**Putting Your Program Together**

When I set goals with my new clients I talk very clearly about sacrifice and commitment that is required to achieve their desired goal. It is normal to expect that when you start a training program, there is going to be a need to make some adjustments to your normal daily routine to fit in the exercise routines, this requires some planning.

For the program outlined here you will need to set aside:

- 3x 40 minute periods for the resistance workouts
- 3x 15 minutes period for the cardio intervals
- 10 minute periods for the each of sub routines to be completed twice a week.

In addition to the workouts you will need to spend 10 minutes, at night completing your mobility routines, recording your workouts and nutrition for the day. Of course you will need to factor into your week the sports specific training you may do already, plus your normal working life and adequate sleep to recover from your training efforts.

Now you’re probably thinking how the hell am I going to fit all this in?

In the package delivered to you you’ll find a file called “weekly planner”, you’ll need to print off 4 copies of this and fill in the week numbers, 1 to 4 at the top. Now please do NOT skip this stage of the program do this now to ensure your success. I have discovered by not doing this stage you are severely restricting your chance of even getting started with the routines.

**Step 1**

The first step is to take the “Week 1” sheet which starts tomorrow. Write the date and day in the top box of the first column. You’ll see that the planner runs from 06:00 to 22:00. This means you MUST sleep for 8 hours each night! This is not optional, it is a requirement in order for you recover adequately from the training programs.

**Step 2**

The next step is to block out the times during the day that you are working. Be sure to allow for travelling time, and do not block out the period during the day that you take your lunch break.

**Step 3**

Next you must block any time that you have prior commitments that cannot be broken, and also mark out the times that you may have for a match or game. Also schedule times when you normally eat breakfast and your evening meal.
Your calendar for the coming week is probably starting to look a little full and we haven’t put in the training times in yet. What you should find is that there will be some big gaps during the day and at the weekend (2 or more consecutive hours). There’ll also be a number of smaller gaps (1 hour gaps)

The next part is the difficult bit.

**Step 4**
On the very left hand side you’ll see a box marked “Sports Training Goals” and another box marked “Conditioning Training Goals” You need to first place in the Sports Training goals your aims for your sports specific training that you want to achieve during this week.

For example, you may have an appointment with your coach, or you want to work on some mental training techniques.

**Step 5**
You now need to fit in your conditioning training for the week as specified above.

Mark in as many of these as possible, alternating between your resistance based routines, your cardio intervals/agility programs. You can combine a resistance workout and a cardio routine at the same workout time if you like.

You can also combine sub routines in to the same sessions, doing a maximum of two sub routines in any given day.

Try to make sure that your resistance workouts do not occur on consecutive days and you have at least one complete day of rest each week.

Here is a sample plan for the first week:
Now your task is to stick to your plan! Treat your scheduled workouts the same priority as any of your work appointments, they cannot be broken. If you must cancel a workout, reschedule it immediately!
Nutritional Responsibility For The Athlete Archer

You Can't Out Train A Bad Diet.

Whilst this program is primarily about the physical training aspects, I would be not giving you the full picture if I didn’t include details about the nutritional program I would prescribe.

Because one of the aims of the program is to assist in helping you lose body fat, the nutritional aspect of the program is vitally important to achieve the fat loss you are looking for.

We have found with our clients that no matter how hard they work at the exercise element of the programs, if they do not make the necessary changes to their nutrition then the results are severely limited.

So with that in mind I would like you to follow a detox based nutritional program for the first 30 days, after which I’ll present to you how to adopt a more balanced and sustainable way of eating which will mean the end of yo-yo weight fluctuations.

The program is called Nutritional Responsibility. I have included the electronic booklet in the package you downloaded.

This diet is designed to cleanse your system of all toxins in the body which will be currently making it hard for you to lose body fat. The program also allows the body to adapt to the training stimulus better, given the types of food you’ll be eating.

You'll not be counting calories or using a points system during this program, you’ll never need to the measure or weigh your food, but you will need to record your nutrition on a daily basis, and you will need to stick to the rules of the program rigidly. No excuses, no kind of, sort of or maybe, it is all or nothing for 30 days.

So that’s it on the nutrition side of things. But just because this is a short section of the book, it doesn’t mean it is not significant. I urge you to follow Nutritional Responsibility for the next 30 days without fail and you’ll discover things about your body you have not experienced before.
Now after 4 weeks of working through the Phase 1 exercises, some of the exercises will be feeling very easy. So it is time to move on.

Phase 2 is simply a progression of the exercises in Phase 1. The changes may not seem very much but you’ll discover that they are very different because of one simple change!

The tempo is the biggest change, instead of a fairly steady controlled tempo, in this phase we’ll be getting you to invoke yet more control. You’ll descend over 3 seconds, hold the position at the bottom of the movement for 1 second, then quickly lift back to the start. The emphasis here is on controlling the movement still, but the hold in the middle gives the exercises a very different characteristic.

If you are not sure about any of the exercises, make sure you watch the videos before the workouts.

**Standard Workouts – Phase 2**

<table>
<thead>
<tr>
<th>Exercise</th>
<th>Sets</th>
<th>Reps</th>
<th>Tempo</th>
<th>Rest</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1: Squats</td>
<td>3</td>
<td>10</td>
<td>311</td>
<td>30</td>
</tr>
<tr>
<td>A2: Flutters</td>
<td>3</td>
<td>10</td>
<td>311</td>
<td>30</td>
</tr>
<tr>
<td>B1: Weighted Step Up</td>
<td>3</td>
<td>10</td>
<td>311</td>
<td>30</td>
</tr>
<tr>
<td>B2: Single arm Overhead Press</td>
<td>3</td>
<td>10</td>
<td>311</td>
<td>30</td>
</tr>
<tr>
<td>C1: Incline Push Up</td>
<td>3</td>
<td>10</td>
<td>311</td>
<td>30</td>
</tr>
<tr>
<td>C2: Russian Twists</td>
<td>3</td>
<td>30</td>
<td>311</td>
<td>30</td>
</tr>
<tr>
<td>D1: Plank</td>
<td>1</td>
<td>1</td>
<td>45secs</td>
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</table>
Standard Workout 2

<table>
<thead>
<tr>
<th>Exercise</th>
<th>Sets</th>
<th>Reps</th>
<th>Tempo</th>
<th>Rest</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1: One Leg Wood Chop</td>
<td>3</td>
<td>10</td>
<td>311</td>
<td>30</td>
</tr>
<tr>
<td>A2: YTWL</td>
<td>3</td>
<td>20</td>
<td>311</td>
<td>30</td>
</tr>
<tr>
<td>B1: Supine Glute Bridge On Ball</td>
<td>3</td>
<td>10</td>
<td>311</td>
<td>30</td>
</tr>
<tr>
<td>B2: Lateral Lunges with weight</td>
<td>3</td>
<td>10</td>
<td>311</td>
<td>30</td>
</tr>
<tr>
<td>C1: Incline Flye</td>
<td>3</td>
<td>10</td>
<td>311</td>
<td>30</td>
</tr>
<tr>
<td>C2: Ball Knee Tucks</td>
<td>3</td>
<td>10</td>
<td>311</td>
<td>30</td>
</tr>
<tr>
<td>D1: Full Burpees</td>
<td>1</td>
<td>30secs</td>
<td>311</td>
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</table>

Rather than go through the explanation of EVERY exercise again. I will simply show the descriptions and images for the new exercises for this 2nd phase.
A1: One Leg Wood Chop

1. Start by holding a light medicine ball above your head.
2. Keeping your back straight and your left leg straight bend forward letting your right leg come off the ground and behind you.
3. Bend forward from the waist, not the back, until a comfortable range of motion is reached, aiming to touch the ground with the ball.
4. Keep your eyes looking forward throughout the movement
5. Return to the starting position and repeat for the required reps before swapping to other leg.

Make sure you keep a check on the tempo and drive the hips forward as you stand tall on each repetition.

If you find yourself out of balance after the first few repetitions you may find that the weight you are holding is too big. Go for something slightly lighter until you can control the movement perfectly.
B1: Supine Hip Extensions On Ball

1. Lie on your back on the floor with your knees bent and feet flat on top of a small stability ball.
2. Press your feet into the floor, engaging your butt muscles and start lifting you butt off the ground first, then lift each segment of your spine off the ground, starting from the butt and working up the spine.
3. Press until your hips are at full extension, but not arching the lower back to lift higher. This is a butt exercise and NOT a lower back exercise
4. Return to the starting position by reversing the movement and repeat.

If anything is going to cause the feeling of cramping in the back of your legs this is the exercise that is going to do it. Focus on the glutes and the muscles in the back of the legs and avoid arching the lower back.

If you are struggling to maintain good balance at the top of the movement, try initially to rest the ball against a wall to limit the movement. As you become more controlled, try coming away from the wall again to get the full benefit of the exercise.
C2: Ball Knee Tuck

1. Start by placing your legs on top of a stability ball and your hands on the ground to form a plank position.
2. Drive your knees in towards your chest bringing the ball with you.
3. Return to the starting position and repeat. Keep your abs tight and your hips parallel with your body.

Maintaining a good flat upper body posture is the essential to reduce any impact on the lower back during this movement. Brace the midsection, rather than “tucking in” your stomach will ensure the strongest position.

Bracing is contracting your whole midsection as if you are anticipating being punched in the stomach.
D1: Burpees

1. From a standing position, jump as high as possible and land down on your feet with your hands on the ground.
2. Kick your feet back. For a moment you will be in a push up position and jump back up again as fast as possible.
3. Repeat for the required repetitions
Phase 2 Cardio Routines

Cardio Routine 1

Warm Up

Your warm up will consist of the exact same method of exercise you will do for the actual workout. For the purposes of this description, we will describe it as if you were running/jogging outside.

Warm Up 1: Spend 1 minute walking swinging the arms and stretching the stride as much as possible

Warm Up 2: Minute 2 progress to a fast walk or jog stretching the stride as much as possible

Warm Up 3: Minute 3 is a light jog or comfortable run pace depending on your level. By the end of minute 3 you should feel warm and ready to go hard. Feel free to extend the warm up if you feel you are not ready.

Workout

Once you have finished the warm up you are going to immediately start the first interval.

You are going to run or jog for 45 seconds as hard as you can for the entire 45 seconds.

You must be ready to ease up after 45 seconds

Go back to a walk for 30 seconds

Then repeat the interval 8 times each time taking a break (active recovery) for 30 seconds

Once you have done the last interval you will start you cool down.

It is important that you push as hard as you can for the 45 seconds of effort, otherwise the exercise is not going to be beneficial.

Cool Down

This is a quick reverse of the warm up

Cool Down 1: Starting with 60 seconds of a comfortable jog/run, immediately after the last interval

Cool Down 2: Then 30 seconds of a jog/fast walk

Cool Down 3: Then finally 30 seconds of a normal walk.

As you go through each stage take control of your breathing and relax as much as possible. If you are on a treadmill take care when you turn to get off the machine.
**Cardio Routine 2**

**Warm Up**

Your warm up will consist of the exact same method of exercise you will do for the actual workout. For the purposes of this description, we will describe it as if you were running/jogging outside.

*Warm Up 1:* Spend 1 minute walking swinging the arms and stretching the stride as much as possible

*Warm Up 2:* Minute 2 progress to a fast walk or jog stretching the stride as much as possible

*Warm Up 3:* Minute 3 is a light jog or comfortable run pace depending on your level. By the end of minute 3 you should feel warm and ready to go hard. Feel free to extend the warm up if you feel you are not ready.

**Workout**

Once you have finished the warm up you are going to immediately start the first interval.

You are going to run for 20 seconds as hard as you can for the entire 20 seconds.

You must be ready to ease by the end of the interval

Go back to a recovery walk for 40 seconds

Then repeat the interval 9 times each time taking a break (active recovery) for 40 seconds

Once you have done the last interval you will start you cool down.

It is important that you push as hard as you can for the 20 seconds of effort, otherwise the exercise is not going to be beneficial.

**Cool Down**

This is a quick reverse of the warm up

*Cool Down 1:* Starting with 60 seconds of a comfortable jog/run, immediately after the last interval

*Cool Down 2:* Then 30 seconds of a jog/fast walk

*Cool Down 3:* Then finally 30 seconds of a normal walk.

As you go through each stage take control of your breathing and relax as much as possible. If you are on a treadmill take care when you turn to get off the machine.
What’s Next?

So once you've completed 4 weeks of each phase, you should be fitter, stronger, more flexible and with a shooting form that is more consistent, and your scores improving because of all this!

The problem is what to do next?

Training is an on going process, stop doing this stuff and you'll steadily go back to the way you were before. The only way to combat this is to keep on with your new habits.

You can do this by simply repeating this program, progressing the exercises by going in to a larger range of motion, adjusting the tempo, or by adding weights.

There are other options including picking up some of my other training programs at http://workoutforaweek.com.

Final Thoughts

It’s strange how information products such as these get left gathering dust on your hard-drive or printed on the coffee table gathering physical dust, rather than actually being used.

Simply reading stuff, nodding in the right places and thinking what a wonderful idea all this exercise stuff really is... you know what I'll start on Monday! Please DO NOT start on Monday, start taking action right now. I've pulled together this system of training in a format that can be followed step by step.

It doesn’t do me any favors if you don’t follow the program, it does you no good either. So take action right now, AS SOON AS YOU HAVE PUT THIS manual down!
General Conditions And Disclaimers

Not everyone is ready to start a training program, PLEASE take care of yourself by visiting a qualified health practitioner to advise you on your suitability for ANY program of exercise.

Whilst every effort is made to ensure this program provides factually correct advice, some of the comments are made by me are of my own opinion and you have a choice to agree or disagree with me.

I would always advise that you contact a qualified personal trainer to walk you through any exercise you do not understand, or you are not sure of the correct form of. Whilst I have tried really hard to talk you through each and every movement, nothing beats having the hands on support of a professional to help you out!

There is always an element of risk associated with taking part in any structured training program, you’re health is your own responsibility and any injuries, illnesses, accidents and death caused at any point during the participation of any of the routines is down to you.