Conditioning for ultimate

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Focus on four key elements

Preparing your body for Ultimate can be split into 4 main areas:

Strength and conditioning training (S&C):

Basic strength work will help your body to survive the rigours of regular training and tournaments. It will help you to recover quicker and train at a higher level more regularly. Progressing your workouts to develop powerful complex movements will help you to become a better athlete, allowing you to run faster, jump higher and throw further. Ideally find a program that is tailored to ultimate players, focussed on leg (single especially), core and shoulder strength rather than building upper-body mass.

Mobility and functional movement:

Strength is only relative to the movements your body can perform. Mobility workouts help you to improve your range of motion and stay strong and balanced through these movements. Mobility, stretching and yoga are all good for preparation and recovery. It’s imperative that you move well and maintain mobility as you age.

Endurance:

In Ultimate we run a lot. There are no substitutes for running workouts that prepare your body for impact, train your muscles for cutting and provide you with the endurance level to last through a match. There’s no point in being the fastest player on the pitch if you only have one deep cut in you.

Ideally, these workouts should mimic what you do on the field. Interval workouts are great for this (1-2 mins of high intensity running followed by a short recovery period), hill sprints relate to repeated on-field accelerations and sprint training prepares you to make multiple high-intensity cuts in a single point.

Speed, agility, quickness (SAQ):

The focus in speed and agility workouts should be on technique and quality over quantity. Here you are practising and perfecting on-field movements (linear, lateral movements, changes in direction, acceleration/deceleration etc) then learning to apply these at speed. Start off slow to make sure you understand and master the required movements. The only way to get faster is to perform each drill at 100% effort, so speed training usually consists of high-intensity efforts followed by longer recovery periods. A large part of agility is also your ability to react to cues (visual/audio) so think about adding reactive drills. A lot of this work can be done in boots on the field and can be mixed in with throwing drills.

“If we just cleaned up all the movement patterns, if we just came out and did that and didn’t do any weight room stuff, these guys would be so much better.”

- Tim Morril

Plan your training

Periodisation

Recovery

Build a base in the off-season

The off season is the best time of the year to focus on building strength and implementing changes to your body to improve athletic performance. You are likely training less with your team and cardio workouts are a lower priority, giving you more time to get in the gym and get strong.

Get your body in working order

Your first priority in the off season is to make sure you **take care of any existing injuries** through rest, proper **rehabilitation** and **active recovery**. It may be important to take some time off from ultimate at the end of a season to allow your body to recover from strenuous tournament weekends and intense gameplay. However, most injuries still allow you to do some form of exercise so find an activity that doesn’t stress or strain existing injuries e.g. low impact exercises to maintain functional movement (swimming, cycling), strength exercises that work on supporting muscles or different muscle groups to the injury.



It's also a great time to **fix any muscular imbalances** you may have or issues with posture that could lead to injury if not corrected. A trained physiotherapist can diagnose these by putting you through a range of movements and exercises to highlight weaknesses and prescribe exercises to develop increased strength and mobility.

Build strength

The minimal aim of your strength work is to **maintain physical condition** and ensure your body is strong enough to handle the upcoming season and the training regime you have planned on and off the field. The work you put in now should allow you to train harder, for longer and with reduced risk of injury.

If you are starting a strength program for the first time it is important to ensure you are working safely and with the correct technique. It's worth studying videos, bringing an experienced team mate or paying for a personal trainer to guide you through the exercises during your first few sessions to make sure you are doing each exercise correctly. Form is really important to work the correct muscles and avoid injury so make sure you **nail the technique before you progress with weigh**t.

The gluteus maximus is the largest muscle in the human body and one of the main muscles used in powerful, explosive leg and hip movements. Learning to **activate powerful glutes** can have dramatic and immediate effects on athletic performance. Exercises such as squats, lunges, deadlifts and hip thrusts all work to train this muscle and are a must for ultimate players in the gym. Single leg exercises (one-legged squats, skater squats, single leg deadlifts) are also practical, we spend a lot of time with one foot on the ground whether we are running, jumping, landing, turning or pivoting. These exercises build **strength and stability in each leg** to improve performance and reduce the risk of injury. Beyond the legs, ultimate athletes also need to have a **strong core**, a routine of dynamic abdominal exercises (plank variations, dead bug, leg raises etc) work on the muscles required for explosive throwing, diving and changes of direction. Having a massive upper body is only a prerequisite if you want to look good in a tank top but it's worth doing a bit of **shoulder work** (e.g TYWL lifts) to keep those joints strong and mobile for throwing, catching and laying out.



On top of those key areas it's important to **balance your workouts** so that all muscle groups get used. Make sure your "push" exercises are balanced out with "pull" exercises to avoid back tightness for instance. Think about throwing in some full body exercises (burpees, prisoner get ups) to balance your regime. Remember in Ultimate you are not performing isolated movements.

The range of equipment and free weights at a gym are ideal for this type of conditioning but you can still create a strong body using **callisthenics** (bodyweight exercises) at home. If you can't get to a gym use a program of exercises that build these key muscle groups and keep you mobile and strong. A twenty minute workout twice a week may be all you need to maintain strength.

How heavy? How many reps? How many sets

If your goal at this stage of the season is to build strength then you want to increase muscle mass through a process called hypertrophy. It is generally recommended to go with a low rep (~8 is fine), heavy weight (~70-80% 1RM*) strategy. Most routines will do 3 sets of each exercise. Body builders will do more like 1-5 reps of very heavy weights. A high rep/low weight strategy is good for muscular endurance, again it depends on your goal.
*1RM = One rep maximum = The heaviest you can lift for a single rep.

Generally, you are looking to progressively add weight over a number of weeks to continue to build strength. There are lots of exercises where bodyweight or very light weights will suffice. Plyometric exercises are great for ultimate but there is a risk of overloading if you start too big or progress too quickly.

Progress your workouts

Once you have built enough strength to cope with the rigours of ultimate and your specific training program you will want to progress your workouts to improve your athletic performance. The goal of your strength and conditioning work is not to be able to lift heavy things or to gain as much muscle mass as possible. Bulking up means you have more mass to lug around the field so the goal is lean muscle. The point is to eventually **translate this strength into powerful on field movement** by progressing into more explosive exercises.

Beyond maintenance and robustness you are looking to build strength to improve on field performance. Ultimate is a game that relies on **explosive actions** (acceleration, sprinting, turning, jumping, diving, rotation etc). These actions require strength and speed and thus the end-game is to develop powerful athletic movements. Power is the relationship between force, distance and time defined by the formula:

Power = (Force x Distance) / Time.

Traditional strength training alters the first variable in this equation by increasing an athlete's ability to apply a maximum amount of force. The goal is to increase the amount of weight you can lift for a single repetition (referred to as one rep max or 1RM) where the speed of lifting does not matter. Training for power engages the time element and the focus is to put a lot of energy into something, very quickly. When running you apply a force to the ground to move your body a certain distance in a given amount of time. By training for power we **train to jump higher, run faster and throw further**. We will revisit this topic later and discuss the sort of exercises involved, for now it is important to realise what direction you want to take your workouts in and what your goals will be.



Think about your tempo

The ‘tempo’ of your lifts can change the way you train. Tempo is often represented by four numbers in a training programme:

- 1-4 =~ seconds spent in motion
- X = explosive motion

For example, a deadlift can be broken into 4 phases:

- Eccentric motion (lowering of the weight)
- Stretch position (bottom of the lift)
- Concentric contraction (lifting the weight)
- Pause (time spent at the top before next rep)

So, 30X1 = Slowly lower the bar, don’t pause at the bottom, explode up, wait 1 second.

When training for power you will use lots of lifts with slow eccentric motion and explosive concentric motion.

Stay mobile and learn to move

Mobility is just as important as strength when it comes to movement in sports. There’s no point in having powerful muscles if we can’t **perform actions with a full range of motion**. Keeping your joints mobile, your muscles flexible and drilling functional movement techniques are all important aspects of your athletic training. **Hip mobility** is especially important given that hip rotation is critical when performing changes of direction and pivoting. Ultimate players are also particularly prone to tightness in the muscles surrounding the hips (hip flexors, psoas, IT band, glutes…). Optimum movement through the shoulders and neck/back is also beneficial so **find a good mobility routine that works these key areas**. There are plenty of online resources with short mobility workouts that you can do at home a few times a week, alternatively you might prefer a yoga or pilates class.



Proper post training **cool downs, static stretching and SMR** (self myofascial release: Foam rolling, hockey ball etc) can help to prevent and relieve muscle tightness. Make sure you have a cool down routine, give your body the best chance of recovery so you can perform optimally in your next session and train more regularly.

Start running - build endurance

At some point over the off-season you will want to get back to doing regular cardio to **maintain base level endurance** and **work towards sprinting** and on-field workouts in the upcoming season. You will gain more from running workouts that closely mimic playing Ultimate, with short bursts of intense running followed by rest. Running long distances at a relatively slow pace will not get you “Frisbee fit”.

- Interval or fartlek runs
- Tempo runs
- Playing Ultimate
- Cross-training - football, squash, sports with similar movements and intensity
- Fast track runs e.g. 200m-800m runs
- Linear sprints e.g. 30m-150m, hill sprints etc.

Develop power and speed in pre-season

Power based S&C

SAQ workouts

Training basic movement patterns is often overlooked in Ultimate, perhaps because most of us have developed the minimal requirements for coordination, footwork and balance. When we think about “skills” we tend to think about complicated actions such as throwing. However, running, turning and jumping are all skills that need to be drilled and perfected by top athletes. Drilling the optimum technique for a 180 degree turn, running sideways or jumping off both feet can be more beneficial than simply trying to perform these actions with more power. Devoting time now to **perfect your game like movements** will result in a greater payoff when it comes to booting up and running your on field speed and agility workouts later in the season. Start slow, use cones and ladders, treat it like a dance move, as with all training it’s **technique before speed**. Watch videos and copy the way other players move.

Peak performance

Training Resources

There are no “one size fits all” strength and conditioning programs for ultimate and your regime ideally should be tailored towards your own goals, time constraints and your unique body.

This spreadsheet lists conditioning resources: Conditioning for Ultimate

If you want somewhere to start then the training programs on the Glasgow Ultimate website are a good introduction.

If you are really keen (and have money to spend), sign up to one of the Ultimate specific training services:

- Training programmes tailored to Ultimate players
- Assistance from qualified coaches
- Community of Ultimate players sharing experience and advice