# Demystifying Steroids

Your guide to safer anabolic steroid use for building muscle with fewer risks.

## **Including:**

Is it for me? How to inject safely? What about side effects? What is the impact on health, body, and body image?





# Demystifying **Steroids**

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For more information and resources queerhealth.info/steroids











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## 1. Who Is This Guide for?

This guide is for people - of any gender - who are considering using anabolic steroids for the first time or are curious about them or for people who have used steroids before but want to learn more about how to do so more safely. The purpose of this guide is to demystify the use of steroids for building muscle - to explain what they can and cannot do - and to provide holistic harm reduction information. This means this guide contains advice about how to more safely use steroids (including how to inject safely and how to mitigate side effects) and also how to adopt a good outlook on steroids (how to decide whether you should use them, how to appraise risks, and how to think about body image).

#### This guide is not an exhaustive how-to:

if you choose to use, you will need to supplement it with some of your own research and decision-making (for instance, about dosing). However, our website **queerhealth.info/steroids** contains links to further, helpful resources - including many, thorough community discussions about steroids - to help you. We have carefully signposted where you will need to do your own research and decision-making throughout this guide.

It is important to know when reading this guide that although the risks associated with steroid use can be reduced – it is never completely safe to use steroids. Prolonged or long-term use is especially likely to have an unwanted impact on your health and body.

# 2. A Note on Sex and Gender

Anabolic steroids are synthetic versions of sex hormones like testosterone (more on this later in the guide). Because of this, the harm reduction advice and guidance about steroid use provided in this guide is as inclusive as possible of differences in gender identity whilst also maintaining sensitivity to differences in sex characteristics. This is important because, depending on their sex characteristics (sometimes known as 'biological sex'), people respond differently to anabolic steroids and experience different degrees of risk and kinds of side effects. To ensure the advice in this guide is as inclusive as possible, where it makes sense to do so we have made reference simply to relevant sex characteristics that a person might possess.

For instance, in information about the effects of anabolic steroids on menstruation, we have made reference simply to 'people who menstruate' so as to encapsulate cisgender women and transgender and non-binary people who have periods, and to acknowledge that not all cisgender women have periods.

At some points in this guide, however, you will find necessary references made to different guidance for transgender and cisgender men and women. The guidance here assumes that cisgender men and women, who live as the gender they were assigned at birth, have characteristics that are typical of their sex. Cisgender men, for instance, are assumed to produce relatively high levels of testosterone naturally because they have testes.

The guidance here also assumes that transgender men and women are on hormone replacement therapy (HRT) - i.e. that they are taking either testosterone or oestrogen as part of their transition. It is important to assert that not all transgender people are on HRT or want to be on HRT. This assumption has simply been made in order to provide guidance that is sensitive to the needs of people who are already using sex hormones as part of gender transition.

<u>On this note</u>, if you are a transgender person who is utilising hormones as part of your gender affirming care, we recommend that, if possible, you speak to your prescribing clinician before starting to use steroids, to discuss and allay any concerns about negative interactions between anabolic steroids and your prescribed hormones.

Non-binary people - an umbrella term for anyone who does not identify with the gender binary of male or female - represent a broad church of people with various gender identities, sex characteristics, and relations to gender affirming treatments like HRT. Accordingly, it would be difficult to provide prescriptive advice for, for instance, a non-binary person who has been assigned male at birth (i.e. it is less 'safe' to assume that such a person would or would not be on HRT). If you are a non-binary person who is reading this guide, we recommend you do so with an understanding of your own defining sex characteristics. For instance, if you are non-binary person who menstruates you would be safe to follow advice given to people who menstruate and if you are a non-binary person who was assigned female at birth and is on HRT, you would be safe to follow advice given to transgender men (who are assumed by this guide to be in an equivalent position, biomedically speaking).

## 3. What Are Steroids?

Anabolic steroids are synthetic versions of the hormone testosterone. Testosterone has a number of effects on our body, including effects that are androgenic and effects that are anabolic. Androgenic effects are those usually described as 'masculinising': the growth of body and facial hair and deepening of the voice. Anabolic refers to the building of new body tissues from proteins. In the case of testosterone (whether made in the body or taken into it as steroids), this means building new muscle. This guide is addressing the use of steroids for primarily anabolic effects.

Our body produces testosterone naturally. It is synthesised from cholesterol within the testes, ovaries and adrenal gland and then secreted. From there, it will circulate through the bloodstream and bind to receptors in cells, including muscle cells, where it will incite the production of muscle tissue.

Only a limited amount of testosterone is produced and released naturally within our bodies. Anabolic steroids bind to the same receptors in our cells as organic testosterone does. Taking steroids therefore increases the amount of testosterone circulating through the bloodstream and amplifies its effects.

The most commonly used steroids are man-made forms of testosterone - called testosterone esters - such as testosterone cypionate and testosterone enanthate. The difference between these is how long they last in the body before they break down.

Steroids are used by people across a variety of sports to improve performance and speed up the recovery of muscle. For people who are interested in bodybuilding – whether personally or professionally – steroids are used because they can accelerate growth and, therefore, the size and appearance of muscle. Most people who use steroids do so because of this aesthetic appeal.

## 4. Steroids Are Not a Silver Bullet

Steroids can be an attractive option because they can help build muscle. However, the choice to take steroids needs to be carefully weighed. Not only does this mean doing research from trusted, well-evidenced sources about the potential risks and how to use them more safely (see below) but also carefully considering your reasons for taking steroids and whether it is the right moment to do so.

<u>The truth is that steroids are not a silver bullet.</u> Although they can appear from the outside to be a quick fix to make muscles grow, especially if you are feeling frustrated with your progress (which may be a reason that you chose to read this guide), the reality is more complex than this. Using steroids at the wrong moment or for the wrong reasons can actually create problems rather than provide solutions. While it might feel that steroids might be just the tool you are looking for (particularly if you have not used them before), it might be that there are better tools for the job.

There are three major reasons you might choose not to use steroids and, instead, consider other solutions. The first is because you understand that steroids may have a negative impact on your overall health and you choose not to take them because of this. The other two significant reasons to reconsider the use of steroids have to do with factors beyond the risks of steroids: first, whether or not you have achieved your natural potential and second, if you are struggling with your body image.

### 4.1. Reaching your natural potential

A lot of people consider steroids because they feel frustrated with their rate of progress. It's very common when you first start lifting to make significant changes in a small period of time. These 'newbie gains' can be really exhilarating and are certainly something to be proud of. After a period of time (perhaps a few months or a year), the rate of progress can begin to slow. It's understandable that this can feel frustrating or disappointing. However, it's important to remember that this slight dip in the rate of change is not a sign that you are doing something wrong. If you think about it, it's only natural that, if you go from doing nothing to regularly lifting weights, you would see a big change in your body that is proportional to the change in your lifestyle you have adopted! It's also only natural that, as your body gets used to that change, the changes in your body slow down a bit.

If you have stopped making newbie gains or if perhaps you aren't making them at all, rather than turning to steroids to accelerate your progress, consider changing other variables first to help achieve your maximum natural potential. There are other factors to consider that affect your development that, if altered, might significantly improve your progress.

#### A. TRAINING

It might seem obvious but proper, effective training is the primary factor that determines whether or not you make progress. Even if you have been training for what feels like some time, it is likely there are ways your training could be improved. A common mistake some new lifters make is lifting the same way week after week. So, as well as ensuring you have the correct form for your lifts and a good training routine that targets muscle groups evenly and consistently, strive to push yourself harder in your sessions regularly. This means increasing the weight that you lift, the number of reps per set, or slowing the speed of some of your lifts, without sacrificing perfect form.

As well as watching YouTube videos or following the advice of fitness professionals that you trust, the best way to learn more about training is in-person with someone else. Whether this is with a friend or a personal trainer, it's incredibly useful to have somebody to train with you to keep an eye on your form, encourage you to push the intensity of your lifting, or offer ideas about effective lifting.

Remember that effective training also includes rest and recovery! Overtraining can significantly impede the rate of your progress. Keep your workouts to a reasonable length (no more than 90 minutes), get plenty of sleep, and take rest days regularly to give your muscles time to repair and grow.

#### **B. DIET**

Another obvious factor to consider is diet. If your goals are to increase muscle mass, it is important you are eating sufficiently. As well as eating a caloric surplus (i.e. eating more calories than you are using up), eat a protein rich diet to make progress. A common rule of thumb used by bodybuilders is to try and eat 1g of protein per pound of your current body weight (or 2.2g of protein per kilo of current body weight). Drinking protein shakes can help you to achieve this goal.

#### C. SLEEP

A common but often overlooked factor that can limit the rate of progress is the quality of your sleep. Improving both the quality and quantity of your sleep - ensuring you are regularly getting as close as possible to eight hours of good sleep daily - can make a measurable difference. If you struggle with sleep - if you have sleep apnoea, for instance definitely speak to a doctor about this before considering steroids because these may have a further negative impact on your sleep. Sleep apnoea can also cause high blood pressure, which can be exacerbated by the use of steroids.



<u>Ultimately, whether or not you choose to use steroids is a personal</u> <u>decision</u> but it is advised that you strongly consider thinking about addressing the factors above before turning to hormones. Unlike steroids, improving training, diet and sleep are risk free. Moreover, if you choose to use steroids and your training or diet are sub-optimal, you will be limiting the positive impact that they will have and placing a strain on your body for little to no reason.

### 4.2. Body image

Another reason you might want to pause before using steroids is if you are struggling with your body image. The media that we consume inundates us with images of idealised bodies and places an excessive emphasis on the way that we look. Under these circumstances, it's understandable that we might feel some pressure to look a certain way - bigger or leaner, for example. For many people, this pressure can be a cause of significant unhappiness and distress. In the UK, an estimated 40% of men and 60% of women report mental health issues relating to their body image, including despair, dysmorphia and even self-harm.

If you are reading this guide, then you might be considering using steroids because you want to have a better body image (you might experience this as wanting to feel better about your body). The difficulty is that low self esteem is not primarily a physical problem - it is not an issue with your body or the way that it looks - but, rather, a mental one. You need to think about caring for the psychological relationship that you have with your body rather than just the way that your body appears. If you don't look after this core aspect of yourself then you will not be able to appreciate any changes that you make to your body (even if you are sure that these would be helpful for your selfesteem). More importantly, if you don't address this, you risk developing an unhappy and unsustainable relationship to steroids - one where 'more is more' and where your body image depends on cycles of steroids.

There are lots of ways, short and long term, to start improving your body image. Simple things like thinking about what you are consuming on social media and whether it is affirming for you can make a big difference. Opening up to your friends, family, or people you trust about how you feel can also help you to feel supported and to begin to unpack the way you feel about yourself and your body. If it is something available to you, working with and talking to a therapist can also help you to process and share your feelings and develop tools to change them. You can find helpful portals to help you find a therapist, as well as other useful resources about body image, at **queerhealth.info/steroids**. Another option is BEEN THERE, a charity that offers free one-to-one mentorship about body image via an app. Visit **beenthereapp.com** to find out more.

Men can find it particularly difficult to open up about how they are feeling because they are often encouraged to swallow emotions as a sign of strength. But opening up about how you are feeling is not a sign of weakness; it is incredibly brave to be vulnerable and can inspire other people to feel empowered to do the same. MANUP? is a mental health charity that is encouraging men to think more about their mental health. You can read more about what they do at **manup.how**.

# 5. Risks and Side Effects

Using steroids, like any drug or medication, carries the risk of certain side effects. These side effects are caused by the other, unwanted actions of hormones in the body, including 'masculinising' and systemic effects (e.g. the impact upon your organs). Many of these side effects are manageable and if you do choose to use steroids, it is advised that you take measures to reduce the unwanted and sometimes dangerous impacts of steroids on your body. Some of these measures are discussed in this section and in the section below – "How to Use Steroids More Safely." You can read more about harm reduction on some of the community websites listed on our webpage **queerhealth.info/steroids**.

<u>That said</u>, because of the risk and nature of the possible side effects of steroids – and the fact that some of these side effects may be unavoidable – <u>it is important that you understand what they are before</u> you use steroids so that you can make an informed decision.

It is especially important that you understand the risks associated with steroids if you have an underlying health condition or are already taking medications. If this is the case, discuss your decision with a doctor. They will also be able to give you a clearer understanding of how hormone use might interact with your condition or any other medications you are on.

The most significant side effects associated with steroid use are listed below. If you do decide to use, you might want to run through these side effects and make a list of supplements and strategies that you can adopt to help mitigate them. Crucially, the greater quantity of steroids you use, the more likely you are to encounter any of these side effects and the more extreme these might be. Be aware of this when considering your use.

It should also be noted that because they tend to have naturally lower testosterone levels, <u>cisgender women</u> - i.e. women who were assigned female at birth - are particularly susceptible to experiencing side effects associated with steroids (including 'masculinising' effects) and, therefore, are encouraged to be particularly careful with their doses. Many cisgender women use lower doses to avoid these side effects or use different steroid compounds to, for instance, cisgender men.

#### A. HAIR LOSS

▲ If you are genetically predisposed to baldness, synthetic testosterone can accelerate the process and cause you to lose your hair at a faster rate. If you are not genetically predisposed to baldness, the use of testosterone can trigger premature hair loss.

If this does happen to you, swiftly stopping use should prevent further loss and allow your hair to grow back over time.

#### **B. ACNE**

⚠ Steroids increase the amount of sebum (oil) that your skin produces, which can trigger acne, especially across the back, chest, and shoulders. While this is not necessarily harmful to your health, it can be distressing and even painful (if your acne is particularly sore). Acne can flare up at any moment when using steroids – for instance, when changing drugs, when changing doses (including lowering them) and even after using a dose and compound that hasn't previously caused acne before.

Cleaning and moisturising your skin appropriately – especially after a sweaty workout – can help mitigate this. Ultimately, if you develop acne because of steroid use, it may not clear until 3 to 4 weeks after you have stopped using.

It is always best to use topical treatments – i.e. treatments that go on the skin – first for acne caused by steroids. Oral medicines, like isotretinoin, that are used to treat acne can have similar side effects to steroids and elevate your risk of them.

#### **C. BREASTS**

 $\Delta \underline{\text{In men}}$  (cisgender and transgender), the use of steroids can lead to gynaecomastia (commonly known as 'gyno') which is the development

or enlargement of breast tissue. In the body, excess testosterone (natural or synthetic) undergoes a process called aromatisation and is converted into oestradiol, which is then converted into oestrogen. The rate at which aromatisation happens depends on the kind of steroid you are using (different steroids aromatise at different rates), as well as the level of the aromatase enzyme you naturally produce.

▲ The oestrogen produced by aromatisation encourages the enlargement of the mammary gland, which can lead to puffiness of the nipples, soreness and, eventually, swelling. If left unchecked, tissue will develop and, in some cases, fluid can even begin to secrete from the nipple if they are squeezed.

Gyno can be eliminated by stopping a steroid cycle and allowing the area to recover. Some steroid users use compounds called aromatase inhibitors – for instance, arimidex – to lower their oestrogen levels during a cycle and prevent gyno. Aromatase inhibitors block the enzyme that converts steroids into oestrogen. However, continuous use of aromatase inhibitors can reduce your oestrogen levels so much that it can begin to negatively impact on your health (including shutting down libido). For this reason, aromatase inhibitors should only be used conservatively.

Some steroid users use a different anti-oestrogenic compound called tamoxifen (or nolvadex) to reduce gyno when it appears. Tamoxifen works by inhibiting the action of oestrogen in cells, meaning that there is not the same risk of plummeting oestrogen levels as there is when taking aromatase inhibitors.

Discussions about dosing of these supplementary medications can be found linked on our website **queerhealth.info/steroids**.

▲ <u>In women (cisgender and transgender</u>), the use of steroids can lead to atrophy (shrinking) of breast tissue. Testosterone inhibits breast development and, therefore, the maintenance of breast tissue.

If you are concerned about the loss of breast tissue, stopping use will allow your testosterone levels to return to their usual state and your breasts should recover.

#### D. LIVER HEALTH

▲ Many steroids, especially if they are used for long periods of time, at high doses or orally, can have a negative impact on the health of your liver. Various liver diseases, including the accelerated growth of liver cancers, have been associated with steroid use. For this reason, it is important to limit or avoid alcohol intake or other drugs that have an impact upon the liver – like heroin or cocaine – while using steroids so as to limit the exposure of your liver to further toxicity.

Many long-term steroid users, especially if they are using oral steroids, choose to take liver protectors – like tauroursodeoxycholic acid (TUDCA) – to maintain healthy liver function during steroid cycles. However, there is very little evidence to support the efficacy of liver protectors and they will be unlikely to provide protection to an individual who is already susceptible to liver issues.

#### E. CARDIOVASCULAR HEALTH

▲ Extended use of steroids has been associated with significant declines in cardiovascular health and deaths associated with steroid use are often a result of heart attacks. Prolonged steroid use can alter the levels of cholesterol in your body, which can lead to blockages in the coronary artery. Steroids are also thought to raise blood pressure. The impact of steroids upon your cardiovascular health are often hidden. Some people may not notice any changes to their cardiovascular health before experiencing a major incident – like a heart attack or heart failure.

Protecting heart health while using steroids is, therefore, essential. You can do this by including cardio in your workouts, eating a fibre rich diet to reduce cholesterol, and monitoring blood pressure with a blood pressure cuff.

If you begin to experience any symptoms associated with heart disease - including pain, difficulty breathing, or light-headedness - speak to a doctor. If you have a pre-existing heart condition, it is strongly advised not to use steroids.

#### F. IMMUNE HEALTH

▲ Anabolic steroids have a negative impact on the immune system, making you more susceptible to infection. For most people, this means heightened susceptibility to common infections like flus or colds but if you are already immunosuppressed in any capacity, this could put you at significant risk. Increased vulnerability to infection means that it is key that anyone using steroids maintains safe and hygienic injection practices.

As well as eating a varied diet, you might also consider taking supplements that support your immune health like zinc and vitamin C.



#### **G. VIRILISATION**

▲ All steroids have an androgenic as well as an anabolic effect and these androgenic effects are experienced by many people as unwanted side effects. These include the accelerated growth of body hair, permanent deepening of the voice and coarsening of the skin. Steroids can also cause enlargement of the clitoris in people with vaginas (in some – but not all cases – it will return to its normal size shortly after a steroid cycle).

Even though they are not shameful, for many people, especially some women, these side effects can be distressing. No steroids have a purely anabolic effect and, as a result, these side effects are unavoidable (although they will be less extreme at lower doses). As a result, you should think carefully about whether you are prepared for these changes if you choose to use steroids.

#### H. MENTAL HEALTH

▲ Mood changes are possibly the most well-known potential side effect of steroid use. While 'roid rage' is rare (and possibly a product of very high doses of steroids and likely also an unmanaged, existing mood disorders), steroid users may experience some changes in their mental health, including: mood swings, irritability, aggression, depression, and even paranoia. Whether or not users experience changes to their mental health is highly individualised: everyone responds differently to steroids and everyone has a different baseline of mental health. Accordingly, you should make sure your initial doses are moderate so that you can gauge how you respond to steroids.

Changes in mental health are largely a product of the effects of elevated amounts of both testosterone and oestrogen (produced through aromatisation). It is important, therefore, to manage the balance of your hormones carefully. After you finish a steroid cycle, it is essential to use post cycle therapy (PCT) – a protocol of compounds that kickstart your natural testosterone levels – to ensure your testosterone levels do not plummet rapidly and so your body can begin to produce testosterone on its own again. Many bodybuilders also use aromatase inhibitors whilst on cycle and during PCT to ensure their oestrogen levels remain in an appropriate range.

Discussions about dosing of aromatase inhibitors and PCT can be found linked on our website **queerhealth.info/steroids**.

As well as managing your hormone levels, you can use other strategies to improve your mental health while using steroids. Even if you are not accustomed to it, things like meditation, yoga and plenty of time to rest can make an enormous difference to your overall mental wellbeing. Try to check in with yourself regularly about your mental health and listen to people around you if they say they have noticed changes in your behaviour or mood.

<u>Importantly, if you are experiencing severe, adverse mental health</u> <u>effects from steroid use, come off them immediately and start PCT.</u> You will begin to feel better within a week as your hormones settle to a baseline level. It's not worth using steroids if it will jeopardise your wellbeing, relationships, or the wellbeing of people around you.

If you start to have suicidal feelings while using steroids, <u>you are not</u> <u>alone:</u> reach out for support. You can call the **Samaritans**, who will listen to you non-judgmentally when you are in a crisis or feeling upset, at any time of day. Their number is: 116 123. You can find more links to helplines and mental health services at our website **queerhealth.info/steroids**.

#### I. SLEEP

▲ Some people struggle with sleep while using steroids. High levels of circulating hormones can affect your circadian rhythm and make it difficult either to get to sleep or to stay asleep all night. Lack of sleep can make it hard to concentrate during the day and also contribute to poor mental health.

If you struggle to sleep while using steroids, avoid the long-term use of pharmaceutical sleeping pills if possible as these can become addictive. Try to use natural sleeping aids like CBD oil, chamomile tea or passionflower extract.

#### J. SEXUAL EFFECTS

A Both testosterone and oestrogen play key roles in sexual and reproductive function, which are therefore impacted by changes in circulating levels of these hormones (both on and off a steroid cycle).

Steroids can have an impact on your libido – and this is often unpredictable. While some people experience high libido because of high levels of circulating testosterone, others experience a loss of libido (which can be experienced as changes in desire and as difficulties getting and maintaining an erection). It is thought that loss of libido is, in part, a product of elevated levels of the hormone prolactin, the release of which is stimulated by testosterone. Elevated levels of prolactin also makes it more difficult to achieve orgasm.

🏶 If experiencing significant sexual difficulties, some users take an

anti-prolactin drug called cabergoline to try to bring their prolactin levels back into a normal range.

In men (cisgender and transgender), declines in libido may also be a product of other factors, including increases in oestrogen postaromatisation. This is another reason that many steroid users use an aromatase inhibitor while on cycle to regulate their oestrogen levels. However, continuous use of aromatase inhibitors can reduce your oestrogen levels so much that it can begin to negatively impact on your health (including shutting down libido). For this reason, aromatase inhibitors should only be used conservatively.

Discussions about dosing of these supplementary medications can be found linked on our website **queerhealth.info/steroids**.

▲ As well as fluctuations in oestrogen levels, changes in libido – especially those associated with long-term use and the periods between cycles – <u>in cisgender men</u> may be caused by changes in the body's capacity to produce testosterone. High levels of circulating endogenous testosterone (i.e. testosterone not produced by the body) sends a signal to the body to stop producing its own testosterone. Because testosterone is largely produced in the testes, a significant number of people who use steroids will experience a reduction in size of their testicles.

Using post-cycle therapy will help ensure that the body is able to produce its own testosterone and also will reverse any changes to the size of the testicles brought about by steroid use.

#### K. REPRODUCTIVE EFFECTS

Anabolic steroids can also affect fertility. In <u>people with testicles</u>, sperm count and concentration can decline drastically while on cycle because of the decline in function of the testes.

Once a cycle is completed or you stop using steroids, sperm quality tends to return to normal (unless you have an underlying condition).

▲ In <u>people who menstruate</u>, steroids can produce enormous variations in periods, causing irregular menstruation or stopping menstruation entirely. Many female bodybuilders accept this as a side effect of steroid use and regard this as a sign they are working.

Even though steroids can cause irregular periods, you can still get pregnant whilst on steroids. If you are <u>someone who can get pregnant</u> you should be aware that anabolic steroids can lead to complications during pregnancy and affect the development of the foetus. Accordingly, if you do choose to use them, you should make sure you are not pregnant before starting a course of steroids and wait at least six months after stopping using steroids before trying to conceive. <u>Steroids do not interfere with the action of your regular birth control</u>, so you can and should continue to use this as normal whilst using steroids.

#### L. STUNTING GROWTH AND DEVELOPMENT

▲ Anabolic steroids can have a profound impact on the natural development of the body. The use of steroids in teenagers has been shown to stunt growth, possibly by leading to premature closure of bones. Many people who have used steroids in their teen years also report lifelong impacts on their hormone levels, sexual function and even brain function. As a result, it is strongly recommended that no one under the age of 25 use steroids and certainly no one under the age of 21. As has already been discussed in this guide, you can make excellent progress without the use of steroids and the effect of steroids will be more significant if you have reached your natural ceiling and perfected your training. This means that waiting until your body has finished developing before using steroids is not only important to your health, it will be more conducive to your goals too.

You can read community discussions about the impact of steroids on development and their use by young people at the links provided on our website **queerhealth.info/steroids**.

## 6. Safer Steroid Use

If, after carefully considering the risks, you are still considering using steroids, it is important that you do so as safely as possible, equipped with knowledge about how to use them in a way that reduces harm. As well as understanding what the side effects are and how to mitigate these, this also means understanding basic principles like what a steroid cycle is, the difference between oral steroids and oils, how to inject safely, and what to do after a cycle.

The best way to learn this information is to do your own research. Setting time aside to read community discussions and trusted resources about how to safely use steroids will benefit you in the long run, equipping

you with know-how that will help you make the most of hormones while protecting your body (and mind). You can find links to some community resources on our website queerhealth.info/steroids.

You might also consider speaking to an experienced and knowledgeable steroid user that you trust to learn more. If you can afford to, some bodybuilding coaches offer advice about how to use supplements and will often be well placed to provide guidance about steroids (including whether they think you are ready for them) tailored to the level of your experience. One way to find a coach is through Instagram (this is how many professional bodybuilders make a living) or there may be somebody who trains in your gym who does this kind of work. Importantly, you should not assume that just because somebody looks 'good' that they are a reliable or trustworthy coach. The best way to find a coach, therefore, is to talk to people that you trust and to see if they have a coach that they can recommend or to look for testimony about someone's coaching - including to what extent they consider health and wellbeing as part of their services - to make a judgement about their trustworthiness.

#### **REMEMBER:**

In the UK, anabolic steroids are a Class C drug. This means that it is legal to have anabolic steroids for personal use. They can also be imported or exported, so long as this is carried out in person. Note that this means they can't be posted or delivered by a courier or freight service.

Importantly, it's illegal to possess, import or export anabolic steroids if it's believed you're supplying or selling them. This includes if you are planning on giving them to friends. The penalty is an unlimited fine, or even a prison sentence of up to 14 years.

To supplement your own research, the remainder of this booklet contains a crash course in safer steroid use, introducing you to the basics of using hormones and how to look after yourself in the process.

### 6.1. What is a cycle?

Because of the side effects of steroid use one of the most important forms of steroid harm reduction is to use steroids in cycles (also known as 'cycling'). Using steroids for only fixed periods of time minimises the risks of experiencing side effects (because you are more likely to experience them and with greater severity the longer that you use them) and also gives your body an opportunity to recover and repair once the cycle is completed.

Typically, a cycle - especially for someone who is just beginning to use steroids - lasts between 8 and 12 weeks. During a cycle, someone will usually inject steroids twice a week with an even spacing of time between injections.

#### 6.2. What steroids should l use?

Different steroid compounds can be used during a cycle and different compounds are sometimes used together (or 'stacked'). Different compounds like testosterone esters, nandrolone and trenbolone vary in terms of their androgenic and anabolic effects and intensities and so can be used to achieve different aims.

For a first cycle, however, it is strongly recommended that beginners only use a single testosterone ester - e.g. testosterone enanthate or testosterone cypionate - and not use a stack.

#### This is important for three reasons:

Firstly, since this is your first time using steroids, it is essential to monitor how your body reacts to them - both physically and mentally. The fewer compounds you use, the clearer the sense you will have of how they affect you and, should you need to stop using because you are experiencing adverse and unexpected side effects, the faster they will leave your body.

Secondly, there is a natural learning curve for learning to use steroids. The first time you do a cycle will require taking in and deploying a lot of new information and staying on top of things (like monitoring side effects). The simpler your cycle is the easier all of this new information will be to master and, therefore, the safer you will be.

Thirdly, if you want to use steroids safely, it's important that you adopt a solid outlook on hormones. The golden rule for safer steroid use is to work maximally on the minimum amount possible in order to achieve results. This is a better mindset to have than 'more steroids means more results' because the reality is that using more steroids largely means experiencing more unwanted side effects and exposing your body to more risks. Indeed, better results on steroids are most often achieved through better training and diet rather than through higher doses. Keeping your first cycle as simple as possible is a good way to apply this mentality.

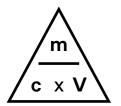
### 6.3. What dose should I use?

Choosing the right dose is an essential part of steroid harm reduction. When choosing your dose, you should follow the golden rule and keep your dose as low as possible to attain results. This will minimise your exposure to unnecessary risks (especially if you have not used steroids before).

Choosing a dose is not an exact science, however. Different bodies will respond differently to the same or different doses so there is no consensus on an exact figure to use for a first cycle. The best way to decide on a safe dose that you feel confident in is to speak to a coach, trainer or friend who is knowledgeable about steroids (and safety). Alternatively, you can read community resources and discussions about dosing online that our listed on our website queerhealth.info/steroids.

When reading discussions or speaking to others about dosing, don't simply copy the regimen of someone who has been using steroids for a while. Look for doses appropriate for your training experience and your experience with steroids (i.e. beginner).

Also remember the standard format for describing doses is in milligrams per week. This means that if someone suggests a dose of 400mg of testosterone enanthate, they are suggesting injecting 200mg of testosterone enanthate twice a week. Vials of testosterone enanthate typically come in a concentration of 250mg per millilitre. Because volume is equal to mass (in mg) divided by concentration, the volume you would need to inject twice a week is 200 divided by 250: 0.8mL.



<b>V</b> : VOLUME (in dm <sup>3</sup> )	m = cV
<b>C</b> : CONCENTRATION (in g/dm <sup>3</sup> )	m
<b>т : мазз</b> (in g)	$c = \frac{m}{V}$

volume = \_\_\_\_\_\_\_ concentration mass

Finally, because they tend to have lower levels of circulating testosterone, cisgender women respond to much lower doses than cisgender men (both in terms of desired effects and side effects) and should therefore look for doses appropriate for women, rather than men. Resources about dosing for women are also linked on our website queerhealth.info/steroids.

Transgender men - depending on their experience with hormone replacement therapy - are also likely to be more sensitive to steroid doses than cisgender men but are less likely than cisgender women to experience 'masculinising' effects as unwanted (although they should be mindful of their heightened sensitivity to other side effects). It is strongly recommended that, where possible, transgender people who are on hormone replacement therapy speak to their provider of gender affirming care to discuss how steroids might interact with their prescribed hormones.

#### 6.4. I don't want to use needles, can l use oral steroids?

Some people have concerns about injecting as a way to administer steroids - perhaps because they are afraid of needles or because of the stigma associated with needle use. For these people, oral steroids steroids that are swallowed as a pill - can be a tempting alternative.

However, oral steroids are highly liver toxic - much more so than the oils that you inject. This is because oral steroids include a methyl group in their chemical structure that prevent them from being immediately broken down by liver metabolism (so that they can circulate through the blood). As a result, the liver becomes exposed to very high concentrations of anabolic steroids, which, when they are not broken down, are very toxic to the liver. It is thought that this is because of the effects of steroid hormones binding to receptors in the liver.

Injecting steroids then, if done correctly, is a form of harm reduction in and of itself. Although there is still a risk to the liver posed by steroid compounds, it's much safer for your body long-term to administer steroids using a needle than to use oral steroids (which should be avoided or used only minimally).

#### 6.5. How do I know if my steroids are real?

Because it is illegal to supply them (but not to possess for personal use), this guide cannot advise on where to buy steroids, although there is plenty of discussion about procurement to be found on community forums. Remember that steroids are a Class C drug, which means it is legal to possess them for personal use and they can be imported and exported as long as this is done in person. It is illegal, therefore, to

transport steroids in the post or by courier. It is also illegal to possess or transport steroids if it is believed that you are intending on selling or supplying them (even if it's to a friend). The penalty can be an unlimited fine or up to 14 years in prison.

That said, if you are buying steroids, you may have concerns about their legitimacy (whether they are the 'real thing'). The best way to assess the legitimacy of your steroids is to look for community discussions about the brand that you are purchasing. Often, dedicated users will have sent off their steroids for testing (also known as 'running labs') to test their viability - or tested them themselves - and made this information public.

If you cannot find information about the viability of your steroids, you can also purchase kits to test them yourself. This is an expensive option but could be worth your peace of mind. A link to one example kit -ROIDTEST - is available on our website gueerhealth.info/steroids.

#### 6.6. How do I look after my health on a cycle?

The best way to look after your health on a cycle is to monitor yourself for side effects and understand how to mitigate them. The section on side effects in this guide includes some helpful tips about how to mitigate the unwanted side effects of steroid use, including insomnia, acne and the development of breast tissue in men. Remember that you can come off steroids at any point during a cycle and begin post-cycle therapy (see below) if you are experiencing significant side effects or are finding them difficult to handle. Once you stop your injection protocol, the steroids will leave your system within a number of weeks and the side effects will abate.

As discussed in the section on side effects (see sections on mental health and gyno), one thing it is critical to manage whilst using steroids are your oestrogen levels. If you are on a cycle, you should make sure you have an aromatase inhibitor (AI) - like arimidex or aromasin - on hand, which will prevent your oestrogen levels from becoming too elevated. As with dosing, community discussions about how to use AI can be found linked on our website queerhealth.info/steroids.

It is important to be conservative with the use of Al. Taking too much will cause your oestrogen levels to crash completely, which can cause things like fatigue, irritability and depression and irregular periods or the cessation of periods in people who menstruate. Oestrogen also plays an important role in protecting cardiovascular health. Therefore, having no

or very little oestrogen circulating is considered to be more unpleasant and risky than high oestrogen, so it is worth being moderate with your Al dose.

As well as monitoring the balance of your hormones, monitoring and maintaining your general health - including cardiovascular health - is important on cycle. Even if you are bulking, you can look after your cardiovascular health by eating a fibre rich diet, eating nutrient rich foods, avoiding excessive fats and doing regular cardio. Drinking plenty of water and taking supplements - like multivitamins, cod liver oil, and magnesium - will also help you stay in good health while you are using steroids.

It is also recommended that you monitor your blood pressure while using steroids. If it is significantly elevated while on cycle, and especially if it does not return to a normal range when the cycle is completed, you may need to make changes to your diet and/or lifestyle (e.g. incorporating regular cardio or eating less salt). Blood pressure testing is available through GPs and some pharmacies. You can also buy an affordable blood pressure monitor for home use. An example is linked on our website queerhealth.info/steroids.

### 6.7. How do I inject safely?

Safe injection practice is essential if you want to use steroids. Incorrect injection practice puts you at risk of infection. The following section provides some instructions about how to inject safely. If you have further questions, you could seek guidance at a local needle exchange (where you can also access supplies for injecting). Links to find your closest needle exchange, as well as further resources about safe injection practice, can be found linked on our website queerhealth.info/steroids.

#### **1. EQUIPMENT**

For each injection, you will typically need:

- (A) a 2mL syringe barrel
- (B) a long green needle (a 21 gauge, 1.5" needle, for withdrawing oil)
- (C) a long blue needle (a 23 gauge, 1" needle, for injecting oil)
- (D) an alcohol wipe or rubbing alcohol and cotton pads







(C)

(D)

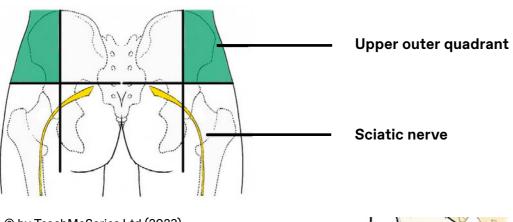
You should never share or reuse any of the equipment you use for an injection. This is because reuse – even in the case that you are reusing on yourself – poses a risk of infection. Once it has been used once, equipment should be disposed of in a sharps box. Disposing of needles in domestic or commercial waste puts the people who handle our rubbish at risk, so it is important to dispose of your used injection tools safely. Sharps boxes, as well as all the equipment you need to inject, can be freely acquired at a needle exchange, where you will also be able to dispose of your used equipment. To find your nearest needle exchange, or to see a list of links where you can purchase equipment for injection, please visit our website **queerhealth.info/steroids**.

#### 2. CHOOSING AN INJECTION SITE

The easiest and safest places to inject steroids are into the buttocks or otherwise into the thigh. A steroid injection is an intramuscular injection, meaning you are trying to avoid hitting veins, arteries or nerves and injecting oil directly into the muscle so that it is slowly released into the bloodstream. Oil injected directly into veins or arteries is dangerous.

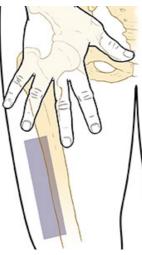
If you inject the glutes,

you should target the upper outer quadrant of the buttock to avoid hitting the sciatic nerves (which are towards the spine).



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<u>If γou inject the thigh</u>, you should target the middle outer muscle.

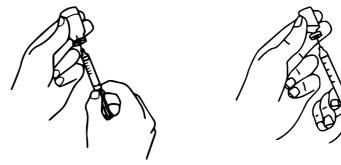


Alternate your injection sites to avoid damaging the muscle and creating scarring. For instance, if you are injecting twice a week and you injected the left buttock on a Monday, inject the right buttock on Thursday.

#### **3. PREPARING FOR AN INJECTION**

To prepare for an injection, make sure you are in a clean environment. Wash your hands thoroughly before beginning and line up all your equipment, including your steroid vial, in front of you.

Lock the green needle head onto the syringe barrel and then remove the cap of the needle. Pull back the syringe so that the barrel contains the same volume of air as the volume of oil you wish to withdraw. Then, holding the steroid vial upside down so that the oil is collected close to the stopper, pierce the rubber top of the vial. Push the air into the oil and then pull back slowly on the syringe. Oil will enter the barrel of the syringe. Remove the needle once you have withdrawn the correct volume of oil.



<u>NOTE:</u> If it is the first time extracting liquid from a new vial, be cautious about how much air you inject into the vial to begin with. If you inject too much air in at once, it is possible that the vial could explode because of the spike in internal pressure. Instead, you should inject air into a new vial only a little at a time.

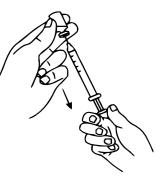
Carefully place the cap back onto the green needle head. Unscrew it from the syringe and safely dispose of it. Now lock the orange needle head onto the syringe barrel.

#### **4. INJECTING**

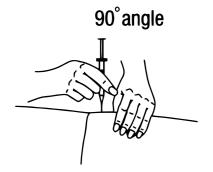
Wash your hands again. Then, using an alcohol wipe or a bottle of rubbing alcohol poured onto a cotton pad, thoroughly swab the injection site.

Remove the cap from the orange needle and push out a very small amount of oil - just a few drops (this is to lubricate the needle and to make sure that there is no obstruction). Then, with the thumb and





forefinger of your non-injecting (non-dominant) hand, spread out the skins on the surface of the site you are injecting. With your injecting (dominant) hand, push the needle in, holding the syringe like a dart at a 90 degree angle with the muscle.



If there is intense pain (i.e. more pain than you would expect from a needle entering your muscle for, say, a vaccine or blood test), <u>remove</u> the needle immediately: you have hit a nerve. You will need to replace the orange needle with a new one and begin the injecting process again (needles become blunted after use, making them more painful and riskier to inject).

If there is no intense pain, hold the barrel steady with your non-injecting hand and use your other hand to draw back slightly on the needle. If blood enters the needle, you have hit a blood vessel. Withdraw the needle immediately and hold a swab or clean tissue paper over the injection site until any bleeding stops. You should then replace the orange needle with a new needle and try again.

If no blood - only what seems like air (but is actually a vacuum) - enters the needle when you pull back on it, you are okay to inject. Very slowly push down on the plunger to inject the oil into the muscle.

Once all the oil is injected, remove the needle. There may be a little bit of blood (anywhere between a dot to a few heavy drops). Swab the surface until the bleeding stops and apply gentle pressure to the area to help distribute the oil.

If you want to watch a video tutorial of how to inject, you can find one linked on our website **queerhealth.info/steroids**.

## 6.8. What do I do when I finish a cycle?

When you come off a cycle, there are some essential things that you need to keep in mind in order to make sure your body recovers.

<u>For cisgender men</u>, it is important to begin post-cycle therapy (PCT) in order to kick-start endogenous (natural) testosterone production again. Some people use injections of human chorionic gonadotropin (HCG) as PCT. You can find community discussions about what PCT protocol is best by following links on our website **queerhealth.info/steroids**.

<u>Cisgender women</u> do not typically need to PCT because the doses of steroids that they use are low. However, as hormone levels return to their baseline after completing a cycle, some women can experience changes in mood. Monitor this carefully and, if you can, find ways to 'ride out' these feelings (e.g. by finding self-soothing strategies or being mindful of your mood).

It is strongly recommended that <u>anyone on hormone replacement</u> <u>therapy</u> speak to their prescribing clinician about what to do after finishing a steroid cycle and how this might interact with their HRT.

You should not come off Al immediately after completing a cycle. This is because steroids have a long half-life and do not leave your body immediately after you finish injecting. Stopping Al completely could therefore cause a rapid spike in your oestrogen levels. Instead, you need to taper down your dose gradually.

It is a good idea to get your blood tested around a month after your cycle ends (and especially before starting a new one). Blood tests can be paid for privately (there are links on our website **queerhealth.info/steroids**). Alternatively, you could ask your GP if they can book you in for blood testing. It will be up to your GP to determine whether they think there is a clinical need for you to access a blood test. This means that there is no guarantee your GP will agree to this, although you might advocate for yourself by arguing that this is in the interest of your health.

When reading the results of your blood test, you should be looking at – among other markers – the scores for your creatinine (a marker of kidney health), sodium levels, blood glucose, white blood cells, red blood cells, testosterone and estradiol levels. Discussion of what the normal ranges for these markers are can be found on our website **queerhealth.info/ steroids**. If you need help reading your blood test or if you are concerned about one of your results, you should talk to your GP. Interpretations of blood test results are more complicated for <u>people who menstruate</u>, so it may be particularly helpful to speak to a GP in this case.

Importantly, in the weeks after your cycle ends, you might find that you lose some weight or size. <u>This is normal</u> and nothing to be worried about. Largely, this will be the loss of water (which steroids encourage your muscles to retain, making them look fuller). It is also very hard to maintain the high level of effort and training intensity that steroids enable. Be kind to vourself and realistic about these changes - they are part of the process!

Finally, some side effects – like acne, changes in libido, or changes in mood – will only onset after the end of a cycle (because of the change in circulating hormones). These should subside after a few weeks but you may need to adopt strategies to manage or mitigate them if they are affecting you very negatively.

### 6.9. What happens next?

Before you consider doing another cycle, remember the golden rule: that more is not more. Maintaining a good relationship to steroids means carefully considering the reasons for doing another cycle, as well as whether you need to increase doses. Remember that increasing your steroid dose will not necessarily proportionately increase the muscle building (anabolic) effect of steroids but it will increase the chances, severity and number of side effects encountered. To the same end, prolonged – i.e. repeated – use (even when cycled) will elevate your risk of experiencing long-term side effects associated with steroids – such as the impact upon cardiovascular health. This should be seriously considered before deciding whether to continue with your use.

Finally, before embarking on another cycle, you should wait some time to let your body recover and adjust to new tissue (this will be beneficial to your goals in the long run). Typically, you should wait as long as you were on a cycle and no less than half of the time you were on one before starting another.

#### **REMEMBER THIS:**

Whether or not you use steroids is a personal choice. It is a choice that is best made when it's informed by an understanding of what steroids do and how they work, as well as an understanding of the risks - legal, physical, and psychological - of taking them. It is a choice that is made most safely when someone has a strong grasp of how to minimise side effects, knows what a good relationship to steroids looks like, and knows how to most safely prepare, inject, and come off of a cycle. Reading and understanding this guide will have equipped you with a good foundation to make an informed decision about safer steroid use. To supplement the content of this guide, we really recommend you follow the links provided throughout. This guide is not exhaustive and additional research will teach you more about best practice with steroids.

For more information and resources queerhealth.info/steroids





# For more information and resources queerhealth.info/steroids