

HOW TO AVOID SHOULDER INJURIES IN THE GYM

SHOULDER INJURIES ARE THE MOST COMMON TYPE OF INJURIES AFFECTING WEIGHT TRAINERS. MOST LIFTERS EXPERIENCE SHOULDER PAIN AT SOME POINT IN THEIR LIFE AND FOR SOME IT CAN BECOME CHRONIC, SEVERELY CURTAILING THEIR WORKOUTS. TONY KOCHHAR, THE UK'S LEADING SHOULDER SURGEON WHO SPECIALISES IN TREATING BODYBUILDERS AND MIXED MARTIAL ARTISTS, EXPLAINS WHY PEOPLE WHO LIFT ARE SUSCEPTIBLE TO SHOULDER PAIN, THE COMMON CAUSES OF INJURY AND WHAT CAN BE DONE TO PREVENT PROBLEMS. HE ALSO RECOMMENDS SOME SAFE SHOULDER EXERCISES.

BY TONY KOCHHAR
PHOTOS BY SUKRITI CHOWDHARY

Approximately 14 per cent of UK adults are members of a gym. Of this group most are aged 20 to 44 and around three quarters claim to go at least once a week. People go to the gym with a variety of aims: weight loss, toning, building strength, and conditioning. Yet even though there are excellent instructors and staff in almost all gyms, people still tend to make the same mistakes. These can lead to serious injuries, particularly around the shoulders, back and knees.

WHY DO WE GET SHOULDER PROBLEMS?

Common mistakes in the gym include:

- Lifting too heavy
- Insufficient warm-up and stretching
- Poor technique and posture
- Working out too much
- Not resting enough between sets
- Always doing the same workouts
- Failing to cool down sufficiently

This leads to severe problems, the most common being "weightlifter's shoulder".

COMMON INJURIES WEIGHTLIFTER'S SHOULDER

Every time you perform a pushing exercise (bench press, lateral raise, shoulder press, dumbbell flye), the shoulder blade pushes around and the force is transmitted straight through the AC joint. Repeated exercises with poor technique and insufficient rest periods will irritate the joint, causing pain and catching. As it progresses it becomes swollen and, as arthritis develops in the joint, permanently painful. Eventually surgery will be required to fix the problem.

STRAINS OR TEARS OF THE ROTATOR CUFF

These can occur over several years or from a severe single strain from weights. Shoulder and chest weights exercises don't only work the pecs and delts, they also recruit the smaller muscles of the cuff that are susceptible to irritation and even tears. It starts as a deep ache in the upper arm but can develop into such severe weakness that you can't even lift your arm over your head.

DISLOCATION OF THE SHOULDER:

This may seem unlikely but I have seen lots of guys who have tried to press or flye a weight that is far too heavy for them, without

being spotted. Their shoulder will suddenly give way and then partially (or sometimes fully) pop out of joint. It usually pops straight back in and feels like a sharp catch. However, it often leads to tears of the labrum, which causes pain and increases the chance of subsequent dislocations.

WHAT SHOULD I DO IF I THINK I HAVE WEIGHTLIFTER'S SHOULDER?

Get checked out! The biggest problem is that we all think it's just a minor tissue strain and push on with our workout. If this injury is picked up early it is completely reversible and with the right treatment (rarely surgery) and simple training modifications, you can return to your previous sport without any restrictions. In fact, most of my patients tell me that following these changes they train better and their performance actually improves.

Unfortunately, I often see people who have left it too long and the only solution is surgery. Even if surgery is necessary, it's not all bad news. The expectation is that patients undergoing keyhole surgery will still make a full recovery and return to

training. Once again, the right treatment plan can get you back training better, stronger and smarter than before.

TIPS TO AVOID SHOULDER INJURIES

- Warm up properly. Even if you are only doing a chest workout, you will still be using other muscle groups.
- Avoid single-muscle workouts, especially shoulder and chest. Instead try workouts that combine pushing movements (e.g. bench, shoulder or dumbbell press) and

pulling movements (e.g. cable rows, dumbbell rows and lat pulldowns). Alternate between the two.

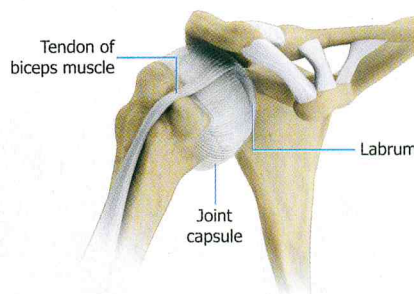
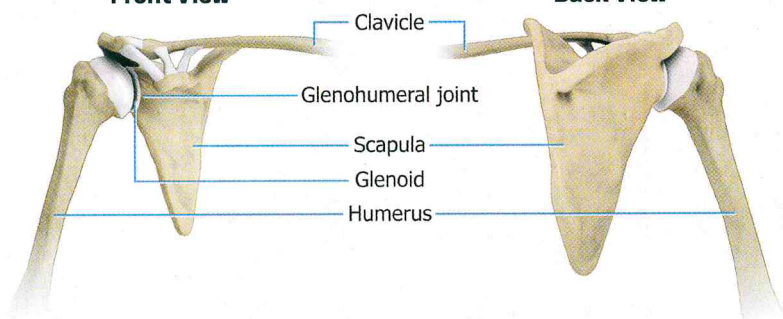
- Try to focus on body weight exercises rather than single-muscle free weight or machine exercises. For example, rather than a chest press or flies on a machine, go with suspended TRX press-ups, or dumbbell presses on an exercise ball. The science tells us that these types of exercise allow less force to be transmitted through the AC joint and more to be focused on the muscles. They also work the core at the same time.

- Allow adequate rest times. Don't do chest or shoulder workouts on consecutive days, especially if you have pain.
- Maintain technique and rhythm in your reps. Don't try and grind out a rep of the highest weight you can (or actually can't) manage. This will only bash on the AC joint or rip on the rotator cuff. Remember, muscle bulk is stimulated most by slow reps, especially on the negative portion of the rep. Definition comes from lots of reps along with cardiovascular work and fat loss.

ANATOMY OF THE SHOULDER

Front View

Back View



The shoulder has the greatest range of movement of all human joints, and comprises three bones (the clavicle, the humerus and the scapula) and three joints. The main shoulder joint (glenohumeral joint) is formed where the humerus (upper arm bone) fits into the glenoid fossa of the scapula (shoulder blade), like a ball and socket. The joint between the clavicle and the front of the scapula is called the acromioclav-

icular joint (AC joint). The clavicle acts as a strut between the breastbone and the shoulder. The final joint (the scapulothoracic joint) is not a real joint, but a space under the shoulder blade as it sits on the back of the chest wall. When the arm moves forwards (opening a door or throwing a punch) the scapula glides forwards around the chest wall.

The rotator cuff is a group of four muscles (the supraspinatus, infraspinatus,

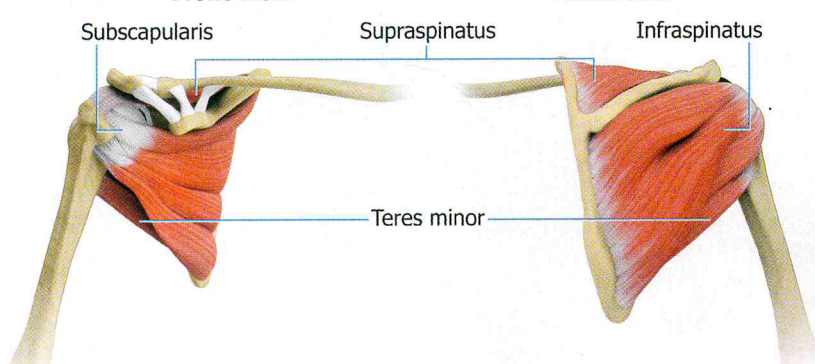
subscapularis and teres minor) positioned around the shoulder joint. These muscles work collectively to stabilise the shoulder joint and also help with shoulder joint movement. The four tendons of the rotator cuff join together to form one larger tendon, the rotator cuff tendon. This tendon attaches to the top of the arm bone (humeral head). The rotator cuff tendon passes through the space beneath the acromion of the scapula, the subacromial space.

The edge of the socket of the shoulder joint, the glenoid fossa, is surrounded by a cartilage structure called the glenoid labrum. The labrum acts like a curved bumper to increase the depth of the glenoid fossa. This keeps the humeral head in the glenoid fossa and helps to prevent dislocations. The biceps tendon and several ligaments attach to the labrum and also help to prevent dislocations.

MUSCLES OF THE ROTATOR CUFF

Front View

Back View

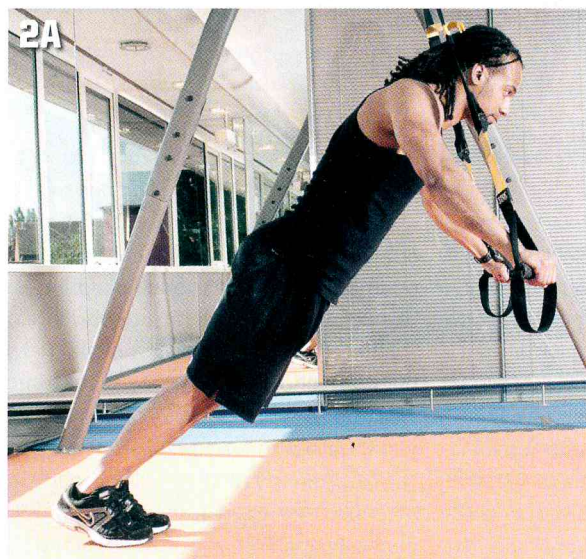
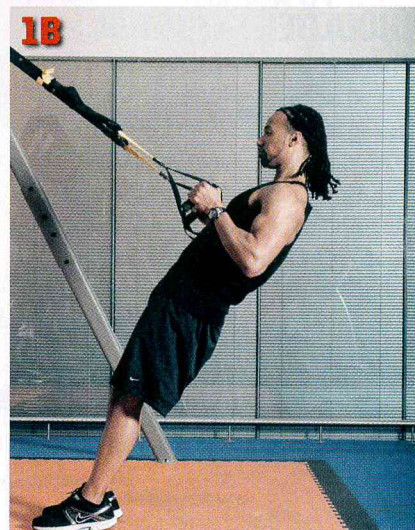
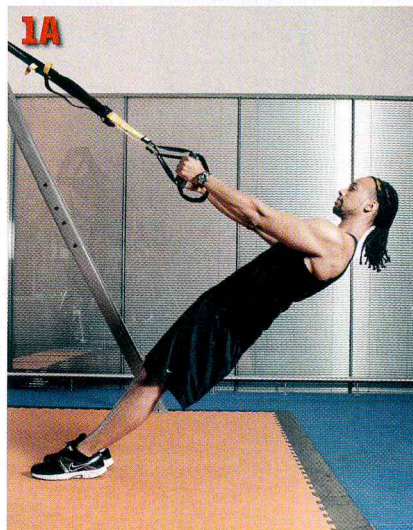


Tony Kochhar is a consultant orthopaedic surgeon at London Bridge Hospital, specialising in shoulder injuries.

DR KOCHHAR'S RECOMMENDED SHOULDER EXERCISES

1. SUSPENSION CABLE PRESS

- Grip a suspension cable in each hand at shoulder width apart, with the cables slack and your feet together.
- Lean back, keeping your feet where they are until you are at 45 degrees and the cable is taut.
- Keeping your body straight, pull yourself forwards by pulling your elbows to your sides. Then lower yourself back to the starting position.
- Perform 3 sets of 8-12 repetitions.



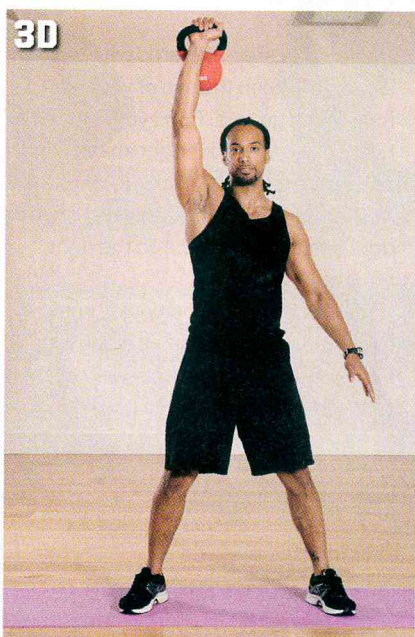
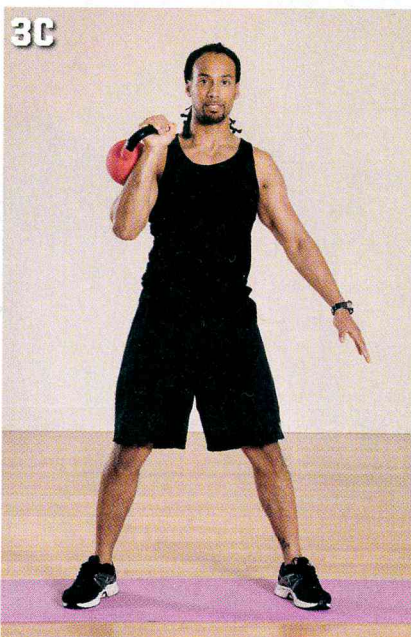
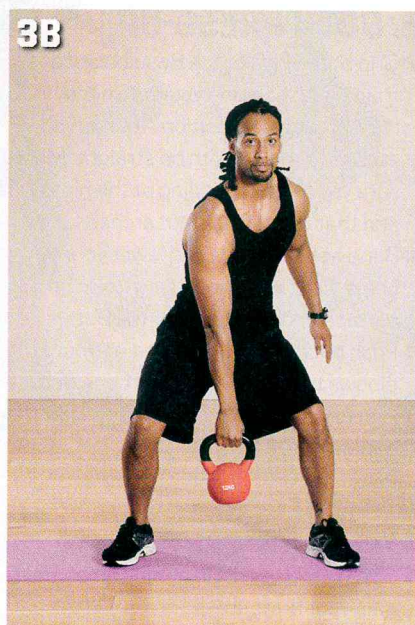
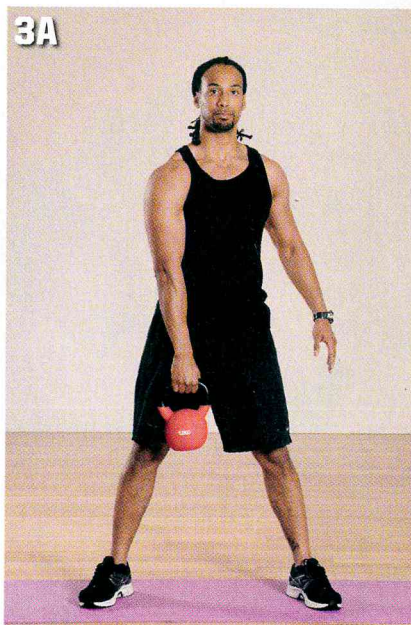
2. SUSPENSION PUSH-UP

- Stand with your feet together with the cables hanging in front of you. Grip a suspension cable in each hand.
- Lean forwards, keeping the balls of your feet on the ground and keeping your body straight and your hands one and a half shoulder widths apart.
- Perform a push-up by bringing your chest in line with your hands. Push yourself back until your arms are almost straight. Don't arch your back or bend at the waist.
- Aim for 3 sets of 10-30 repetitions depending on ability.



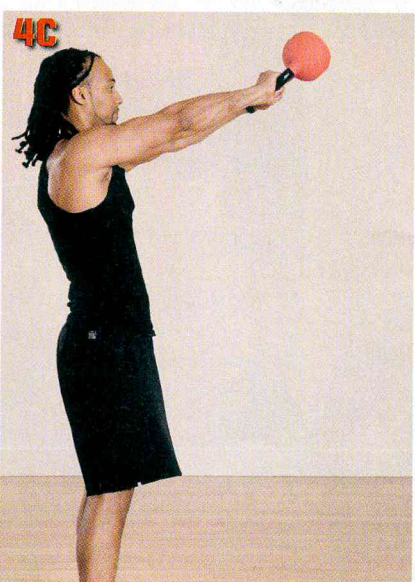
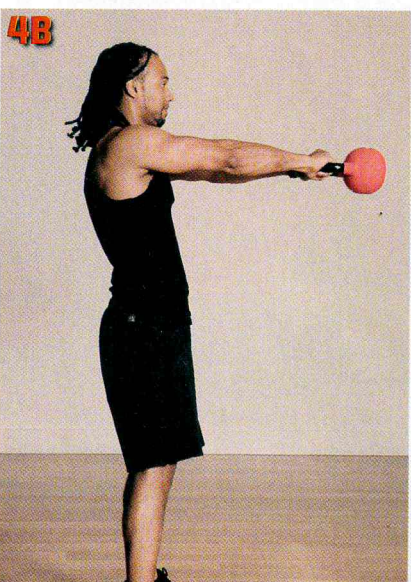
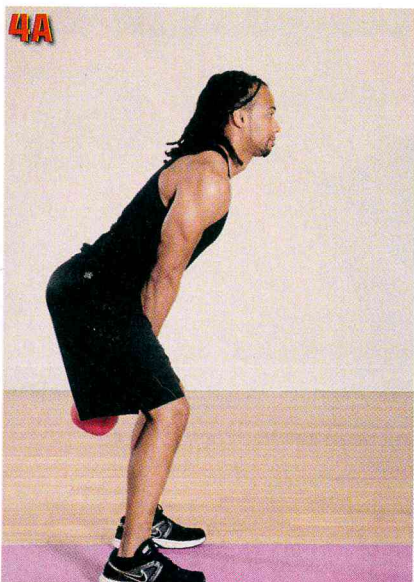
3. KETTLEBELL SQUAT PRESS

- Stand with your legs apart and hold the kettlebell in one hand. Your arm should be hanging down in front of you, towards the centre line of your body.
- Bend at the knees, push your backside out, bend at the hips slightly and keep your back straight. The kettlebell will lower to just above ankle height in-between your legs. Keep it in the centre line of your body.
- Push upwards by straightening your legs. Bending at the elbow, lift your forearm and swing the kettlebell to the outside of the shoulder of the arm that is holding it. It should swing backwards and come to rest on the back of your forearm. Now push upwards with your arm until it is nearly straight.
- Return to the starting position, letting the kettlebell swing forwards in your hand.



4. KETTLEBELL SWING

- Stand with your legs just over shoulder width apart. Hold the kettlebell between your legs with both hands and bend at the knees, pushing your backside out and keeping your back straight.
- Drive up with your legs so you stand straight up and swing the kettlebell forwards in front of you.
- Your arms should be straight and your hands should reach face level. Let the kettlebell swing back down and return to the start position.



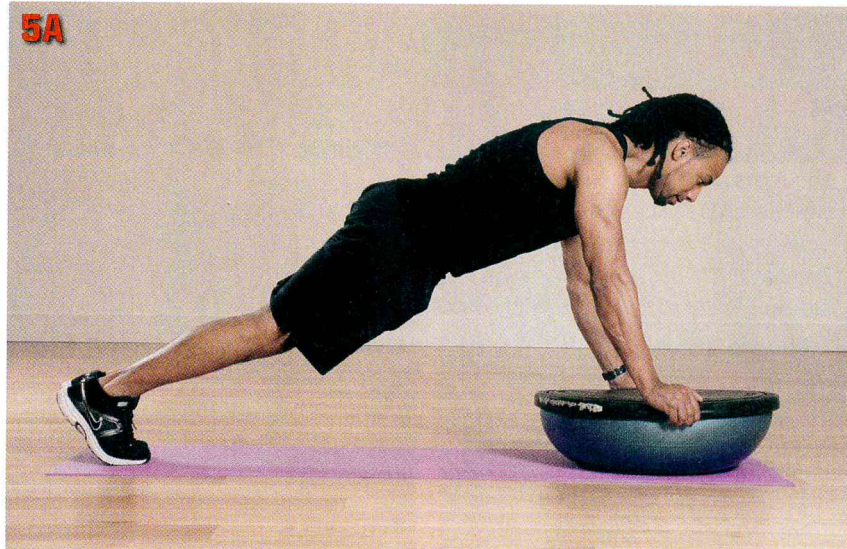
5. BOSU PRESS-UP

- Grip both sides of the Bosu balance trainer and position yourself in the normal push-up position. Your arms and body should both be straight. Make sure you are not bending at the hips and that your back is not arched
- Bend at the elbows and lower your chest to a few centimetres from the surface of the flat side of the Bosu.
- Push back up by straightening your elbows to return to the start position.
- Aim for 3 sets of 10-30 repetitions depending on ability.

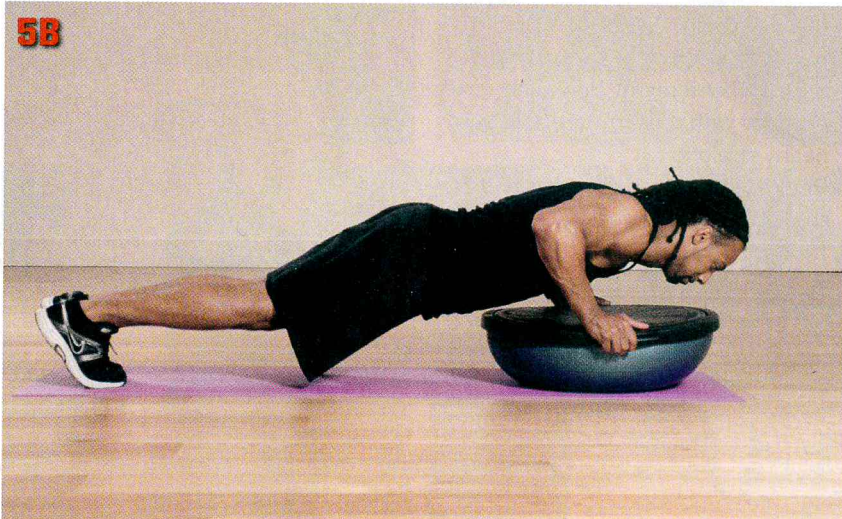
6. MEDICINE BALL TWIST AND LUNGE

- Stand up straight holding the medicine ball. Your arms should be in front of you, and the medicine ball resting against you.
- Take a large step forwards with your left leg but keep the ball of your right foot on the ground. Bend your left leg at the knee so that your right knee nearly touches the ground.
- At the same time twist your body to the right and lift the ball out to the right, arms outstretched.
- Return to the start position by pushing back up. Now do the same again but this time twist to the left and step forwards with your right leg. **M&F**

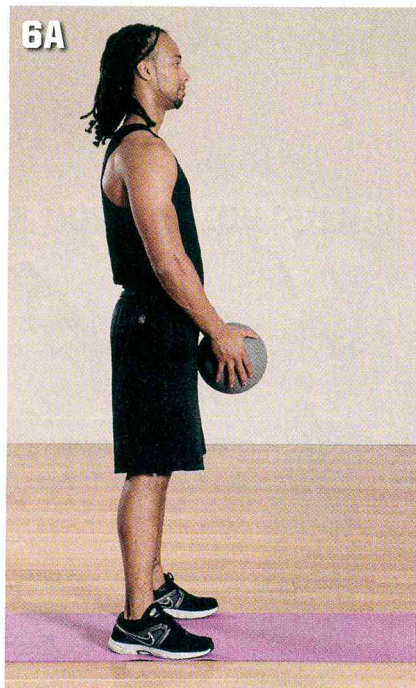
5A



5B



6A



6B

