SPORTS SCIENCE INDIA FANZINE MONTHLY NEWSLETTER SPORTS SCIENCE INDIA INDIA'S FIRST MAGAZINE ON SPORTS SCIENCE SEPTEMBER, 2022 ISSUE 06

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DRIVING HERITAGE!

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INDIA'S FIRST SPORTS SCIENCE MAGAZINE

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CHIEF EDITOR'S DESK





DR. SARTHAK PATNAIK

MS. Orthopaedics, FSSISA, FASM, FHA, FSSM, Arthroscopic & Sports Surgeon

Welcome to the sixth edition of SSI Fanzine. We appreciate a lot for your love towards our last edition. In this edition we have managed to get some unknown & unsung personals who have brought laurels & entered the limca book of records such as Mr. Sajjan, Ex President guard equestrian. A peep into the popular vintage car lovers club. Insight into pre and post pregnancy rehab exercises, arjuna awards and a rehab guide for javelin throwers. We wish you a happy reading. Do mail us at **info@ssifanzine.com** for your feedbacks.



KNOW MORE ABOUT THE

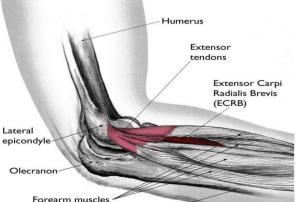
Lateral epicondyle

SIGNS, SYMPTOMS AND MANAGEMENT OF TENNIS ELBOW



ain around the elbow is quite a common phenomenon. The pain is experienced

particularly post vigorous activities or even during rest. Elbow joint is a joint, which connects the arm with forearm. It is composed of various ligaments, muscular, vascular and neural structures. Each structure around the elbow joint contributes to one specific pathology even the presentation is different. The elbow has four sides-Superior (upper), Inferior (Lower side), Medial (Inner) and Lateral (Outer) surfaces. The medial (inner) surface bears the nerve (Ulnar), which gives sensation to the middle of the forearm, hand and fingers. The whole inner side of forearm muscles get attached to the medial aspect of elbow. Similarly, the outer muscles of forearm gets attached to the lateral aspect of elbow. (Humerus). The elbow joint is formed as Ulno humeral joint, Radioulno and Radio -humeral joint. The most common common cause of elbow pain is Tennis Elbow in comparison to the Golfer's elbow or any injury to the nerves.



Ulna

WHAT IS TENNIS ELBOW?

Tennis elbow is a condition, which affects the lateral aspect of the elbow joint. As the name suggests, it was commonly seen among tennis players due to repeated use of wooden racquet in earlier times.

CLINICAL FEATURES

Pain is localised to the lateral aspect of the elbow predominantly on the lateral epicondyle of humerus. Patient complains of difficulty in lifting weights even a glass of water or to perform turning movement of the forearm such as wringing of towels or opening the lock. Pain radiates towards the shoulder. The pain can persists for a few days to months. A proper diagnosis and active intervention can ease it faster.

SIGNS

Tenderness present on the bony prominence of lateral epicondyle of humerus or lateral aspect of elbow. Pain also arises on pressuring the muscle bulk near the elbow. There is occasional tenderness on the triceps body and scapula. Patients also complain of pain while applying resistance or dorsiflexion of the wrist.

X-RAY

Predominantly, it looks normal. There will be barely the presence of any Osteophyte or Calcification.

MRI

Elbow joint helps to detect any localised Oedema, intimal tear of the tendons muscles or any bony spur.

TREATMENT

Analgesics and antiinflammatory play a pivotal role. Most importantly patient needs rest of the affected limb for minimum 2 weeks.

Release of the forearam, arm and scapula muscles is highly essential.

Proper physiotherapy and stretching exercise of the forearm is required.

Steroids ease the pain and improve movement temporarily.

Role of PRP (Platelet Rich Plasma): It is still debatable.

Surgical release is rarely required.

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Characteristics of the Sport

The length of play is not predetermined in tennis matches, so they can last several hours, involving high aerobic and anaerobic demands with repetitive stresses due to a variety of strokes and movements. There are hundreds of strokes per match.

Players use the whole body to generate high racquet and ball velocities, especially in overhead movements for power shots such as serves and smashes. This is called the kinetic chain. which begins with feet, knees, and hips, progressing with core and trunk, shoulder and elbow, and finally to the wrist, hand, and racquet.

Tennis can be played on different surfaces. Clay is considered to be a slower surface due to an increased shock absorption and loss of ball speed. Sliding becomes an integral part of playing on clay. Hard court has the highest coefficient of friction and lowest shock absorption, sliding is much more difficult, leading to shorter stopping distances.

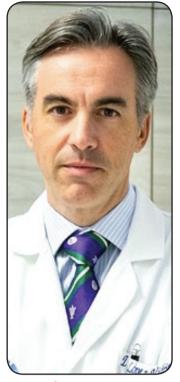
IBNNIS: MANAGING INJURY & MORE



ROSA LÓPEZ-VIDRIERO TEJEDOR Sports Medicine and Arthroscopic Surgery, Hospital Universitario Infanta Elena, Madrid



ALEJANDRO SALIDO VILLARÓN Fellow MD, ISMEC



EMILIO LÓPEZ-VIDRIERO MD PHD Sports Medicine and Arthroscopic Surgery, Medical Director of ISMEC

(EPIDEMIOLOGY OF INJURIES)

The injury rate in tennis players has increased in the last 20 years. Recent data from ATP/ WTA tournaments showed that women leave tournaments significantly more frequently than men (incidence rate per 1000 match exposure 65.65 vs. 52.68).

The most injured body section for both sexes was the lower limb being significantly higher rate for women (40.8%) than men (31.2%). When considering subcategories, the most injured anatomic part in women was the thigh with 10.7% (quadriceps and hamstrings), followed by the shoulder (8.9%). In men, low back injuries included 8.6% of all injuries followed by shoulder injuries (6.4%). Musculoskeletal injuries can occur in nearly all regions of the body, and most were defined as overuse injuries coming from repetitive microtrauma inherent in the sport.

Shoulder injuries accounted for the second cause of injury

departures for both sexes, without relation to the type of surface, which indicates a general problem. It is believed that the imbalance in the eccentric-toconcentric ratio of the rotator cuff caused by the deceleration at the end of the serve/smash causes most of the shoulder injuries.

Focusing on shoulder injuries and adaptive changes, in the study with elite active tennis players by our group, players experienced GIRD (glenohumeral internal rotation deficit, 87.4%, Fig. A), dyskinesis (57.7%, Fig. B), long head of the biceps (LHB) tenderness (35.5%, Fig. C) and tenosynovitis on the LHB (20%, Fig. D) on the dominant shoulder.

Curiously, the mean external rotation (ER) was normal in both shoulders (93.8° on dominant and 93.3° on nondominant). Even if it seems that the nondominant shoulder might not suffer from these injuries/adaptive changes, it does; 56.3% had GIRD, 45.9% dyskinesis, 16.3% LHB tenderness, and 11.6% tenosynovitis on LHB on their contralateral shoulder.

Suprascapular nerve entrapment was also observed with a prevalence of 7.5%. In all of the cases, it appeared with atrophy of both the supraspinatus and infraspinatus fossae of the dominant shoulder (Fig. E,F). and it was correlated to higher age and amount of hours played of tennis. Our theory is that this relates to a dynamic entrapment resulting from the altered biomechanics of the scapula and shoulder complex.

Injuries of the elbow region involve mainly lateral and medial epicondylitis. Lateral epicondylitis or "tennis elbow" rates in recreational players are quite high, mainly because of the overload on the backhand ground stroke, ranging from 37 to 57%, while the incidence of medial epicondylitis is higher in elite players caused by overload on the serve and forehand strokes.

EXPERT SPEAKS

SPECIFIC REHABILITATION AND RETURN TO PLAY

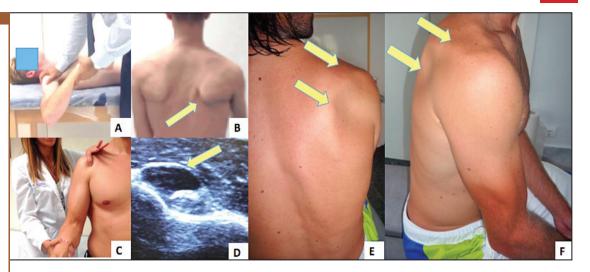
Conservative treatment will be effective in most tennis players. The developed rehabilitation methods are well researched and refined, and they should focus on the importance of scapular stability, dynamic stability of the glenohumeral joint, proprioceptive work, and the techniques of reintroducing the specific movements.

The first step after injury is to control the symptoms, which can be achieved with ceasing or decreasing the aggravating activity; however, mobility must be maintained as much as possible. The most common incapacitating symptom of the upper extremity in tennis players is pain from the long head of the biceps (LHB), which prevents them from serving, as well as creating difficulty during the volley and forehand movement.

In case of severe pain, it may be advisable to inject triamcinolone and anesthetic under ultrasound control within the biceps sheath avoiding intratendinous injection. Other therapies can consist of radial shock, wave, platelet rich plasma (PRP) injections or percutaneous intratissue electrolysis with galvanic currents, all combined with physiotherapy. Although not obligatory, this injection is useful as a diagnostic tool and also allows the tennis player to begin and tolerate the physiotherapy protocol sooner.

The suggested shoulder protocol starts focusing on improving scapular dyskinesis by working on the parascapular muscles to gain conscious control of the scapula. Then, shoulder extension, abduction exercises, and cross kinetic chain (the affected shoulder/scapula complex and the contralateral lower extremity) exercises are introduced. It is also very important to stretch the tight muscles inserting at the coracoid that might aggravate the scapular dyskinesis. The protocol progresses with strengthening exercises of the shoulder girdle including eccentric and isoinertial exercises to improve LHB tendinopathy. In order to improve GIRD due to posterior muscle tightness, the "sleeper" and towel selfstretching exercises are indicated.

Taking time to explain every exercise and correct the position as well as involving the tennis player team is essential to achieve good results. A comprehensive rehabilitation program takes into account the individual requirements of a tennis athlete as well as individual external, biological, and physiological factors that can influence a player's rehabilitation.



PREVENTION STRATEGIES

There is evidence that training may have a protective effect and that under training increases injury risk.

Multiple studies have identified alterations or changes in strength balance and muscle group performance in elite tennis players, which end up causing alterations in the kinetic chain and therefore injuries. Thus, commonly injured areas should be targeted for preventive training strategies. As tennis is an asymmetric sport, the prevention strategies should also focus on achieving the most symmetric muscle-joint status as possible by working in the gym to strengthen and stretch the nondominant sides such as the contralateral upper extremity or the ipsilateral core muscles.

The prevention strategies are focused on resistive exercises for core, shoulder, elbow, hip, and lower extremity.

The movements required in tennis include repeated flexion, extension, lateral flexion, and rotation of the spine; therefore, extensive core stability training is critical to avoid back injuries and kinetic chain disorders. Most of the exercises explained in the rehabilitation program



for shoulder injuries are also used in prevention programs.

Exercises recommended for the prevention of elbow and wrist injuries are based on increasing the strength and muscle endurance of the wrist and forearm muscles. There are other sports science disciplines, such as psychology, exercise physiology, and pedagogy/motor learning that could also make a case for their role in prevention strategies. Another important step in prevention of injuries is regular movement analysis of the players to pick up weaknesses or unhealthy movement patterns, which could lead to an overuse injury. These steps should be realized together with the coach, who can implement changes to the technique, as well as training exercises to help prevent injuries and assure a good physical condition of the athlete.

COVER STORY

GALLOPING TO SUCCESS



bout 18 years ago, Hon Captain (retired) Sajjan Kumar broke a 32-year-old national record and made it to the Limca Book of Records after he successfully jumped a height of 195 cm, mounted

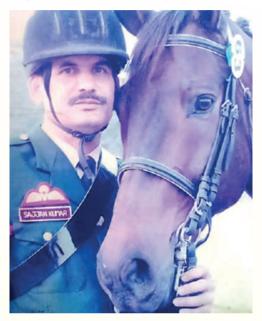
on his horse 'Fariyad' at the Delhi Horse Show conducted by Army Polo and Riding Club, New Delhi. Since then, nobody has been so close to breaking the record. But, that's not Kumar's only stupendous feat. The 57-year-old has earned several accolades at the national and international level in the equestrian sport. Not just that, he has been a part of the prestigious President's Bodyguard—that was raised in 1773 and is the senior most Regiment of Indian Army—for 25 years.

Hailing from a remote village-Samchana-in Haryana's Rohtak district, he grew up amid the clatter of hooves. Much of his childhood was spent listening to the stories of his grandfather, Dhan Ram of 20 Jat Lancer-an armoured regiment in the Armoured Corps of the Indian Army-conquering his rivals in Burma (now Myanmar) during the First World War, mounted on a horse. Later, his father reared two horses at his ancestral home. "My father was not a trained rider. Neither had he used the horses for participating in equestrian sports. Rather, it was more of a hobby. He would ride through our lush green fields," recalled Kumar, sitting at his present home in Kolkata.

At the age of 17, Kumar developed an intense desire of becoming a sportsperson. "I used to listen to the stories of Raghubir Singh, a notable equestrian of India. He was awarded the Arjuna Award in 1982 for his achievements. He had represented India in the Asian Games in 1982 and won a gold medal in the individual event. I wanted to represent my country at the Asian Games," said Kumar. However, he was clueless about his choice of sport. Driven by his passion for sports, he started self-training in running. He made it a daily ritual to run through the fields for about an hour as early as 3.30am. And, it is still the same way he starts the day even at 57 years of age. With conspicuous pride, he shared: "I still run half-marathons. I believe in

From setting a world record to representing India in Asian Games, the Hon Captain & former

President's Bodyguard Sajjan Kumar's journey in the equestrian sport has been an inspiring one!



maintaining fitness."

He was introduced to the equestrian sports finally after he made it to the President's Bodyguard. "I am thankful to Indian Army, which provided me the opportunities and necessary infrastructure for practicing the sports. When I had joined the President's Bodyguard, there were 90 horses with the regiment. The number went up to 200. It was not only about learning the sport alone; I studied about all its aspects and learnt to train the horses. It is important to train your horse for acing the sport. I developed a bond with them and they would identify me as I called out their names," Kumar said, adding that a pavilion at the Rashtrapati Bhawan had been named after 'Fariyad,' his record-setting 'companion.'

In 2001, Kumar had started taking up trials for Asian Games. And, in 2002 Asian Games in South Korea, he represented India in Show Jumping along with three others. Though team India failed to clinch a medal at the Asian Games that year, later in 2007 Kumar bagged a gold medal in London while participating in the inter-services event involving armies of 13 countries. Currently, Kumar trains

REPORT BY: SARTHAK PATTNAIK/SOUMIKA DAS

teenagers at Tollygunge Club in Kolkata. As a trainer, he hopes someday his students will break his record. "In India, the riders get to participate in about 7 to 8 events round the year owing to the climatic conditions. However, in Europe the equestrian sports are played throughout the year. But, if you are determined, success will come to you. As a coach, I believe in instilling confidence in my students. I am certain that someday our country will clinch gold in the sport in the Asian Games," he signed off.





ACHIEVEMENTS

In 2002 Asian Games in South Korea, he represented India in Show Jumping along with three others.

In 2007 Kumar bagged a gold medal in London while participating in the inter-services event involving armies of 13 countries.

In 2004, Sajjan Kumar broke a 32-year-old national record and made it to the Limca Book of Records after he successfully jumped a height of 195 cm, mounted on his horse



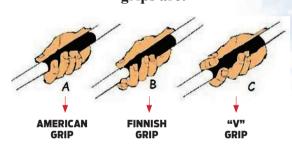
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JAVELIN

A GUIDE TO THE PERFECT THROW

KNOW THE GRIP

There are three different types of javelin throwing grips. The javelin should lie horizontally to the shoulder, with the palm facing upward. The three types of grips are:



THROWING THE JAVELIN ISN'T AN EASY TASK. IT TAKES A LOT OF PRACTICE TO AVOID INJURY. THE THROWING TECHNIQUE NEEDS TO BE CORRECT. BEFORE BEGINNING OF TRAINING SESSIONS, STRETCHING OF THE ARMS AND SHOULDERS SHOULD BE DONE PROPERLY. THESE PARTS ARE INVOLVED IN THE ACT OF THROWING THE JAVELIN.

HOW TO RUN-UP?

Hold the javelin high over the head and the elbow should be leveled with the neckline. The javelin should be pointed towards the target with the tip pointed slightly down. While taking first strides, hips should be perpendicular to the target area. Strides before throwing vary from 10 to 18, depending upon the players. During the final strides, the planting foot should turn opposite from throwing hand and be pointed towards the target. Throwing arm should be at shoulder height and the leg should cross over before pulling the javelin for throw.

ALL ABOUT THE THROW!

Almost 80% of the launching speed is generated during this phase. The front leg must be extended to ensure a high point of release.

Turn the right hip quickly forward and up to bring it square with the delivery area. The chest and shoulders must follow in rapid succession.

The right elbow will follow by rotating outwards and up, alongside the head (2), while the right shoulder is pulled through and the arm is 'whipped over the shoulder' with a vigorous forward and upward extension. The "whipping" action should be a result of the hip / chest / shoulder movement, and not an action on its own. The delivery arm must start its final action when the hand is above the shoulder. Keep the left arm relaxed, next to the body and then remain firm (blocked) during

(blocked) during the final thrust of the right side of the body. It must not be allowed to sweep too far backwards.

The eyes must look forward towards the point of the javelin to avoid the shoulders from turning.

The launching takes place above the left foot. The outward rotation of the elbow along with the release of the fingers on the javelin causes the javelin to rotate clockwise to create stability during flight.

JAVELIN

MUST-DO EXERCISES

Javelin is a power throwing event. Although the javelin is quite light, javelin throwers must be strong, fast and athletic to be able to launch the javelin as far as possible. They should practice the following exercises:















USHPRESS



EXTERNAL ROTATION



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THINGS TO AVOID

Grasping the javelin with a tight fist.

Jumping upwards during the final strides.

Shoulder facing front to bend the trunk forward.

Bending of the throwing arm and taking the javelin off its throwing line.

Throwing around the right side of the body

MAKE THESE YOUR AIM

Hold the javelin along the length of the hand.

Widen the final strides and gradually increase the flexion of the right leg.

Run straight during the approach.

Keep the body weight over the back leg.

With left shoulder in closed position, get a twist between the upper and lower body.

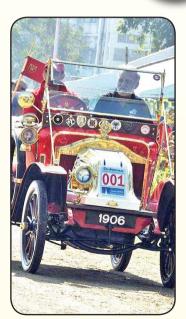
Keep the throwing arm straight and the palm of the throwing hand uppermost.

Keep the left leg front and brace it.

Arch the body in the throwing position and keep the elbow up during the throw.

CLUBS OF INDIA

From restoration of vehicles to organising events, the Vintage & **Classic Car Club of India** (VCCCI) does all that's needed to keep the love for the antique beauties alive in the country





DRIVING HERITAGE

YSORE NO 5

very weekend at

the Fountain area in Mumbai, a group of enthusiasts meet to keep the motoring heritage saga rolling in the country's

business capital. Despite coming from different professional backgrounds, their love for the old wheels binds them. And, hence they collectively identify themselves to be the members of one of the oldest and foremost vintage and classic car clubs of India, 'The Vintage & Classic Car Club of India (VC-CCI).

The club, which boasts of having the robust presence of about 220 members, was founded in 1988 by Nitin Dossa (the founder) and Pranlal Bhogilal (the founder president). "The club was born out of the Western India Automobile Association, founded in 1904. The association had held its first rally from New Delhi to Mumbai in 1904. Later, VCCCI was founded as a separate club. At that time, Pranlal Bhogilal had the largest collection with about 200 vintage and classic cars. Now, of course we have members who have over 250 varieties of vintage cars," Dossa said.

The club was set up to champion the cause of preserving the rich automobile and motoring heritage of India. In 1999, the club had hosted one of the biggest rallies, 'The Jewel of India' during that time. Continued next page

PROUD MOMENTS

Nishant Dossa's Alvis Speed 25 won the 'Pre-War Classic - European' class trophy the 6th edition of the **Cartier Concours** d'Elegance at Rambagh Palace in Jaipur in 2019. The Alvis also received the prestigious first runner-up award in the 'Maharaia class' at the 2018 Pebble **Beach Concours d'** Elegance held in San Francisco (USA)

VCCCI member Yohan Poonawalla's stunning 1927 Rolls-Royce Twenty HP had bagged the 'Most Exceptional Coachwork Award' at the Salon Privé Concours d'Elegance. **Barker, which started** life as the company's demonstrator & trials car. and was subsequently owned by the Nawab of Sachin, HH Haidar **Muhammad Yakut** Khan. Sachin (now in Gujarat) was a princely state

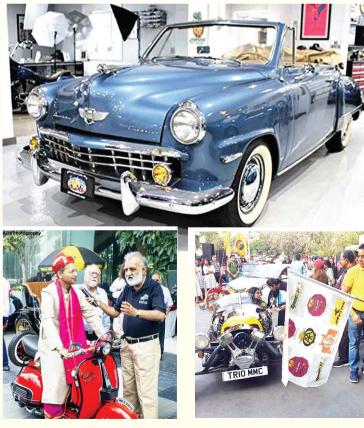
Yohan Poonawalla's **1949 Bentley Mark VI** had won the Duke of Marlborough Award at the Salon Privé Concours d' **Elegance UK.**

Another member, Viveck Goenka had restored 1961 Ford **Thunderbird Hardtop** that originally belonged to the Maharaja Of Gwalior

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"We are the only club till now that has been recognized for holding an international vintage car rally. It was done in the 2000. It was called the 'Rally of the Raj.' About 15 participants from around the world took part in it. We repeated the 1904 rally route from New Delhi to Mumbai via royal Indian cities of Agra, Jaipur, Jodhpur, Udaipur, Ahmedabad and Rajpipla," said Dossa. Lord Montageau of Beaulieu had driven the oldest car in the rally, a 1909 Rolls-Royce Silver Ghost which was displayed at the Motor Show in London in 1906. The other cars to have featured in the rally include Bentley, Vauxhall, Cadillac and Mercedes, among others. In 2004, VC-CCI became the only club in India to celebrate Rolls-Royce centenary by holding a rally. It featured rare 1922 Silver Ghost (the oldest RR in the rally), the RR 1928 20/25-HP, RR 1979 Silver Shadow (the first Rolls to



be imported post-Independence), Silver Wraiths, Silver Spurs, etc.

But what it takes to be a member of the club? "We only

accept members who own the vintage or classic cars. Once you sell the car, the membership seizes,"explained Dossa. One of the oldest and rarest cars owned by any of the club's member is a 1903 Humber. It belongs to Abbas Jasdanwala. Such is the passion for the vintage beauties that some of its members like Nitin Dossa have inhouse garages for carrying out their restoration. Not just that, Dossa remembered how he used to ogle at an Austin 7 1928, driven by an Anglo-Indian lady, during his childhood. Soon after, on his 18th birthday, his grand uncle gifted him the same car and his love for vintage cars grew intense. Besides holding an array of events, the clubs helps its members in restoration of the cars. They are also offered help for importing spare parts. "We don't get tyres that's a challenge for vintage car lovers. But, the future is bright for vintage car lovers as the government has allowed to import cars. Anybody can import cars till 1950s model," he added.

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regnancy can be seen as a great time for lifestyle modifications. Mod-

erate to vigorous physical activity (MVPA) are proven to be beneficial for both mother and foetus in most cases with the necessary modifications. During pregnancy, women who have absolute contraindications to exercise may continue with their usual daily activities but should avoid moderate and vigorous activities. Women with relative contraindications should discuss their potential participation in these activities with their obstetric care provider prior to beginning or continuing with their exercise programs.

> REPORT BY: DR. NISHA KAUSHIK PATNAIK

PRECAUTIONS

While regular exercise is good for pregnant women, there are certain tips and precautions they should keep in mind during exercising. Some of such precautions have been listed below:

Exercises should be performed under supervision

Do not hold your breath (Valsalva's maneuver)

Do not change positions quickly.

Stay hydrated at all times (before, during and after workouts).

Follow proper warm-up and cooldown process.

Ensure bladder emptying before workouts.

Avoid exercises which demand higher balancing and different groups of muscles.

MOVES FOR PREGNANT A'HELE'ES

FITNESS FACTFILE

KNOW MORE ABOUT THE BEST EXERCISES TO BE PERFORMED DURING PREGNANCY



ADVANTAGES OF ANTENATAL EXERCISE

Exercise helps to relax you and make you feel better. According to experts, it improves the circulation for mother and baby. It reduces aches and pains of pregnancy. Here are some advantages of antenatal exercise:

Reduces morning sickness.

Reduces insomnia, anxiety and stress

Reduces other pregnancy-related complaints, eg: fatigue, leg cramps, oedema of extremities, etc.

Prevents excessive weight gain during pregnancy.

Improves muscle strength.

Improves core stability.

Maintains muscle length and flexibility.

Improves glycemic control

Improves posture.

Enhances relaxation.

Prepares for physical demands of labour.

THE PREGNANCY EXERCISE GUIDE



Piriformis muscle plays an important

role in pelvic stabilization. Sit on the chair with neutral pelvis.

Now keep your foot over the

opposite knee and bend forward from the hips keeping your pelvis neutral until you feel the stretch.

Hold it for 20 to 30 seconds.

Repeat for the other side as well. Do 3 to 5 sets.



PECTORAL STRETCH

This exercise helps in the opening of the chest and prevents the development of round shoulders.

Nudge the ball in the corner or near the wall.

Sit in a comfortable position keeping the back on the ball.

Keep your hands by the side or clasp them behind your head.

Rest the head on ball and let the elbows expand and open your chest.

Repeat 3 to 5 times.

10

FITNESS FACTFILE

BUTTERFLY / TAILOR POSE

Grasping feet or ankles, draw both heels as

Lean forward slightly and hold that position.

For an even deeper stretch, press your thighs

down with your hands or elbows to bring your

This is a fantastic hip-opening stretch for the

inner thighs, hips, and groin. This pose not

only helps to widen your hips, but also helps

knees closer to the ground. Hold that pose

Focus on taking big deep belly breaths.

together, allowing knees to point

close to body as comfortable.

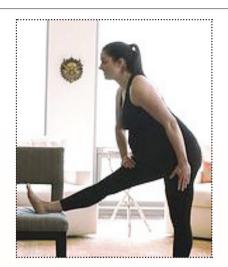
and focus on the stretch and

to ease aches in lower back.

out to each side.

vour breath.

Sitting on the ground, bring the soles of shoes



HAMSTRING STRETCH

Shortening of hamstring can cause back pain and pelvic misalignment.

This stretch can be performed in various positions and bilaterally or unilaterally.

Sit in long sitting position, bend one knee and try to reach your extended leg as much as you can.

Hold it for 20 to 30 seconds and repeat it for 3 to 5 times on each side.

During first trimester, supine lying hamstring stretch can also be done



CALF STRETCH

Place rolled towel, mat or foam roller on the floor.

Place ball of the foot on the towel, mat or roller and heel on the floor. Keep the leg straight. Hold this position for 20-30 seconds.

Repeat on the other side and perform 3-5 sets on each side



SQUATS / GARLAND POSE

Stand with feet facing forward or slightly outward, shoulder-width or slightly wider than hip-distance, apart.

Slowly and fluidly bend your knees and lower your body, extending the arms out in front for balance if helpful.

Balance your weight on the balls of your heels and pause.

Breathe and slowly rise back up and then repeat the action



HIP FLEXOR STRETCH

Kneel on your right knee and put your left foot in front of you, so your leg forms a right angle.

Put your left hand on your left thigh for balance and put your right hand on your right hip or also on your left thigh.

Keeping your back straight, lean forward, and shift your body weight to the forward leg. You will feel the stretch in the right thigh.

Hold for 30 seconds, then switch legs and repeat



STRENGTHENING EXERCISES PELVIC BRIDGING SOUATS LUNGES WALL PUSH UPS

SPECIFIC EXERCISES

TRIMESTER

THIRD

duck walk, one should first stand with feet placed wide apart and both arms at sides. While performing the exercise, it is important that the abdominal muscles should be in tightened position so that the back and abdominal muscles are not accidentally injured.

Thereafter one is required to lower body from the hips as if individual were about to sit on a chair, ensuring that the heels should be bearing the weight

This way there will be no damage done to the knees. Clasping hands together in front of chest helps to maintain balance during the duck walk.

Once in the required position, progress walk forward a few steps at a time without changing squat position, then turn around and walk back to the place from where started and slowly stand up. It is advisable that while performing the duck walk exercise, individual should lean forward to retain balance ensuring that the weight remains on the heels

Women can also practice the duck walk exercise during pregnancy specifically towards the last few months of the pregnancy. It will help to strengthen their thighs and will allow the baby's head to move lower easily. Duck Walk is highly effective in facilitating easy and normal labor/ delivery

ACHIEVERS / SPORTS EVENTS



BREAKING BARRIERS BHAVINA PATEL CLINCHED THE GOLD MEDAL IN WOMEN'S PARA-TABLE TENNIS CLASS 3-5 AT 2022 BIRMINGHAM COMMONWEALTH GAMES.



SHUTTLE ZONE

INDIA BAGGED A TOTAL OF 17 MEDALS AT THE RECENTLY-CONCLUDED THAILAND PARA BADMINTON INTERNATIONAL IN PATTAYA.

GOLDEN MOMENT

INDIAN PADDLER ACHANTA SHARATH KAMAL HAS WON MORE GOLD MEDALS THAN 56 NATIONS AT THE RECENTLY-CONCLUDED 2022 BIRMINGHAM COMMONWEALTH GAMES.



SCRIPTING HISTORY RAGHAVENDRA CREATED HISTORY AS HE BECAME THE FIRST PARA-FENCER FROM INDIA TO CLINCH A MEDAL AT THE COMMONWEALTH FENCING CHAMPIONSHIPS.



STRONG SHOW WITH SEVEN MEDALS AT COMMONWEALTH GAMES, INDIAN BOXERS SHONE BRIGHT IN BIRMINGHAM.



Rugby World Cup Sevens -The 2022 Rugby World Cup Sevens will be the eighth edition. The 2022 tournament, which will comprise 24 men's and 16 women's teams, will be played over three days in one venue in September. It will take place at the Cape Town Stadium, South Africa between September 9 and 11. UCI Road World Championships -The UCI Road World Championships are the annual world championships for bicycle road racing organized by the Union Cycliste Internationale (UCI). The 2022 UCI Road World Championships will be held from 18 to 25 September 2022 in Wollongong, New South Wales, Australia.





World Rowing Championships - The 2022 World rowing Championships will take place between September 18 and 25, 2022 in Racice, Czech Republic. The senior World Rowing Championships are held every year at the end of the international rowing season and World Champions are crowned in 14 Olympic boat classes – seven for men and seven for women, as well as six International boat classes for lightweight rowers.



The 2022 Toyota AFL Grand Final will be held on Saturday 24 September 2022 at the Melbourne Cricket Ground. There is no bigger day on Australia's sporting calendar than the Australian Football League Grand Final. The AFL Grand Final will be played for an estimated 35m television audience world-wide.

SPORTS EVENTS OF SEPTEMBER				
NO.	DATE	SPORTS	EVENT	
1	Sep 9-11	Rugby 7s	Rugby World Cup Sevens	
2	Sep 18-25	Rowing	World Rowing Championships	
3	Sep 18-25	Cycling	UCI Road World Championships	
4	Sep 23 – Oct 15	Volleyball	World Volleyball Championships (women)	
5	Sep 24	AFL	Grand Final	

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The 2022 FIVB Volleyball Women's World Championship will be the 19th staging, contested by the senior women's national teams of the members of the Fédération Internationale de Volleyball (FIVB). The Netherlands and Poland are selected as dual hosts for this event. MIND SPACE

PRUEBA DE SPORTS THE MONTHLY QUITZ



EXPLAIN

In 1942, as he prepared to go to war for Germany, he wrote a letter to his American friend.

"My heart is telling me that this is perhaps the last letter of my life. If that is so, I beg one thing from you. When the war is over, please go to Germany, find my son and tell him about his father. Tell him about the times when war did not separate us and tell him that things can be different between men in this world.

"Your brother,____

The German died during the Allied invasion of Sicily in 1943. The American fulfilled his promise and found "his brother's son" in Germany.

WHO ARE THESE TWO FRIENDS?



ANSWERS OF LAST MONTH QUIZ

Jason Gillispe

2. Fabien Barthez;Laurent Blanc

3. Non alcoholic Champagne used on the podium in the Bahrain Grand Prix

 Antonio Rebollo, the Paralympic Archer who lit the torch at the opening ceremony of the Barcelona Olympics

5. First ever "high five"

DR. SUNIL NIKOSE, U.K

ARJUNA AWARDS 2021

S. No.	Name of the Sportsperson	Discipline
1.	Neeraj Chopra	Athletics
2.	Naib Subedar Jinson Johnson	Athletics
3.	Hima Das	Athletics
4.	Nelakurthi Sikki Reddy	Badminton
5.	Subedar Satish Kumar	Boxing
6.	Smriti Mandhana	Cricket
7.	Shubhankar Sharma	Golf
8.	Manpreet Singh	Hockey
9.	Savita	Hockey
10.	Col. Ravi Rathore	Polo
11.	Rahi Sarnobat	Shooting
12.	Ankur Mittal	Shooting
13.	Shreyasi Singh	Shooting
14.	ManikaBatra	Table Tennis
15.	G. Sathiyan	Table Tennis
16.	Rohan Bopanna	Tennis
17.	Sumit	Wrestling
18.	Pooja Kadian	Wushu
19.	Ankur Dhama	Para-Athletics
20.	Manoj Sarkar	Para-Badminton

A Ranks 3rd on the 🐴

list with 6 Aus Open Women's Singles titles. She also

achieved success in doubles, and teamed up with the legendary Jean Borotra to win the Australian mixed doubles in 1928. It was said of her that " She ran like a gazelle and could retrieve balls effortlessly like a "stonewaller". She practiced with men like Jack

Crawford and local players from her hometown.

B Was the first non-Briton to win Wimbledon in 1907 (He also won the doubles that year). He also played 39 Davis Cup matches and served as the commissioner of then Australian branch of the British Red Cross, he also played for St.Kilda Football in his youth.

WHO ARE A AND B AND WHAT HONOUR DO THEY SHARE?

JITAMITRA MISHRA

Otl Aicher who had designed the Lufthansa logo used Cherie von Birkenhof as the model. Otl added different colours but the black & red were omitted since they belonged to the Nazi Party.

WHAT INNOVATION RESULTED AND WHAT WAS IT CALLED?

3 WHAT FAMOUS LANDMARK ANSWERS TO BOTH THE BLANKS? , Charlottenburg, Tiergarten, Moabit, Mitte,

Friedrichshain, Kreuzberg, Neukolin, Schoneburg, Steglitz, Zehlendorf, _____

THERE IS NOT MUCH THAT ONE CAN SAY ABOUT THE QUALITY OF THE CAMERAWORK & EDITING OF DOORDARSHAN. BUT THIS PERSON LOST HIS CAREER BECAUSE OF IT :

After the game, when I saw the footage, I saw the camera going from one direction to the other and maybe there was some editing problem but it showed me in very bad light..as if I had left the goalpost and run away. [...] No, they didn't show me at the goalpost at all. People thought maybe I got scared and left my post.

ARJUNA AWARD



THE ARJUNA AWARD, OFFICIALLY GIVEN FOR OUTSTANDING PERFORMANCE IN SPORTS AND GAMES, IS THE SECOND-HIGHEST SPORTING HONOUR OF INDIA, LAUNCHED IN 1961, THE AWARD IS PRESENTED BY THE PRESIDENT OF INDIA EVERY YEAR TO THE SPORTSPERSONS OF DIFFERENT CATEGORIES. THE AWARD IS NAMED AFTER ARJUNA, ONE OF THE CHARACTERS OF THE SANSKRIT EPIC MAHABHARATA OF ANCIENT INDIA. HE HAS BEEN SEEN AS A SYMBOL OF HARD WORK, DEDICATION AND CONCENTRATION. THE SPORTSPERSONS **ARE HONOURED WITH A BRONZE** STATUE OF ARJUNA, A SCROLL AND CASH PRIZE.

There are three categories under which the award is distributed in various disciplines of sports:-

International level competitions, such as Olympic Games / Asian Games / Commonwealth Games / World Cup / World Championship Disciplines

Indigenous- Native Games

For para sports persons



WHO WON THE FIRST ARJUNA AWARD?

Arjuna award was first presented in 1961 to six people. Amongst the notable winners was Manuel Aaron, awarded in 1961. He was India's first chess International Master (IM). He obtained the title in 1961 and India did not produce a second IM for the next seventeen years. He dominated the chess in India, becoming national champion nine times between 1959 and 1981. Meena Shah (Badminton) was the first women to get the Arjuna award in 1962.



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