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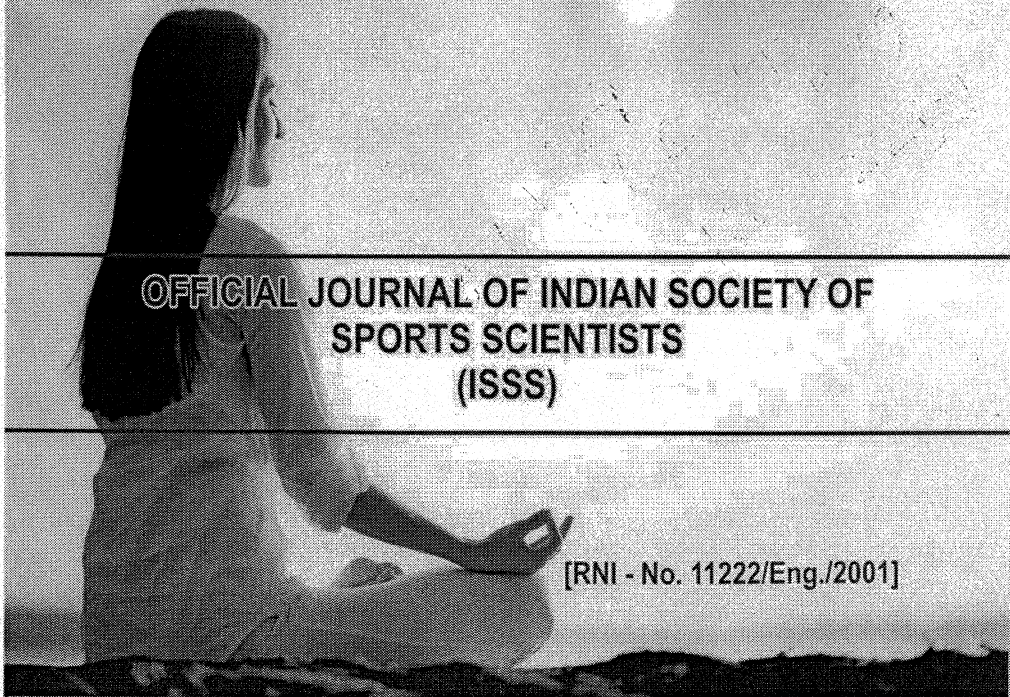
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A COMPARATIVE STUDY OF COORDINATION AMONG DIFFERENT GAME PLAYERS

Miss Deny Borah*

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Abstract: The main objective of the study was to compare the Psycho-Physiological (Eye hand coordination) variable among different Game Players. The sources for data collection were selected from the players of handball, Basketball, Cricket, Football and Vollyball, who participated inter-collegiate level under Dibrugarh University, Assam. All those subjects were sources of data. Analysis of the data was collected on two hundred and fifty (250) players. Modified bass test was used to collect the data. and the score was recorded in number of points. One Way Analysis of Variance (ANOVA) method was used for data analysis. The findings of the study revealed that there were no significant differences in the coordination among the players of Handball, Basketball, Cricket, Football and Vollyball.

Keywords: Psycho-Physiological (coordination)

Introduction: Movement is essential to perform any daily activity. Your ability to move efficiently requires control and coordination of the body's postural alignment. In other words, you need strong balance to move efficiently. Body coordination is a performance-related fitness component that describes the smooth, efficient movement patterns that are parts of sport skills and tasks. Your stage of learning influences how well you can perform these component movements of a skill.

Physical coordination is the smooth functioning of multiple body parts when executing a particular movement. For example, doing a jumping jack requires moving the arms and legs at the same time as one coordinated action. Physical coordination is a motor skill that requires the integration of spatial perception and physical movement to achieve a desired result.

Objective of the Study: The main objective of the study was to compare the Psycho-Physiological (Eye hand coordination) variable among different Game Players.

Hypothesis of the Study: It was hypothesized that there would be significant difference among the different Game Players.

Methodology: The sources for data collection were selected from the players of Handball, Basketball, Cricket, Football and Vollyball, who participated inter-collegiate level under Dibrugarh University, Assam . All those subjects were sources of data. Analysis of the data was collected on two hundred and fifty (250) players. . Modified bass test was used to collect the data. The data was collected on

Eye hand coordination among the selected game players. One Way Analysis of Variance (ANOVA) method was used for data analysis.

SUMMARY OF ANALYSIS OF VARIANCE FOR THE DATA ON EYE HAND COORDINATION OF SELECTED GROUPS

Sources of Variance	Degree of Freedom	Sum of the Squares	Variance	F-ratio
Between the Group	4	55.69	13.9225	0.51@
Within the Group	245	6683.66	27.280	

@Not significant at 0.05

Tabulated $F_{(0.05)}(4, 245) = 2.37$

It is evident from the findings of the Table that there is no significant difference in the eye-hand coordination of selected games players as the calculated F-value of 0.51 is quite smaller than the tabulated F-value of 2.37 at .05 level.

Discussion and Findings : In the beginning of this study it was hypothesized that there would be significant difference among the players of handball, basketball, cricket, football and Volleyball in Eye hand coordination. The findings of this study revealed that there is no significant difference of Eye hand coordination among different game of the players. Hence the hypothesis stated earlier is rejected. It may be due to selected games involves similar kinds of movements for play and In all selected games we need to deal with the ball which may be facilitate coordination.

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ENHANCING ATHLETIC PERFORMANCE WITH AYURVEDA

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Abstract:

Performance, we could argue, is in fact life itself. At some level, we're always performing—whether as a pro athlete trying to make a game winning shot before the buzzer, or as a loving parent balancing precariously on a step ladder to pull down a storage bin. Not to mention singing your favorite song in the shower, although I'm not entirely sure that qualifies as athletic. As human beings, we conduct a myriad of tasks every day that require a symphony of movements to be properly harmonized using the exquisite equipment of our mind and body. These movements are no more crucial or less scrutinized than in the field of professional sports. I've had the pleasure of consulting with professional athletes for over a decade and the principles of Ayurveda continue to prove to be powerful in the way they affect the mind and body, regardless of the person I'm helping or their level of prowess. Although there are many deep levels of understanding covered in this beautiful science, here are some of the broader insights about the three main qualities of energy (doshas) we distinguish in Ayurveda that I hope will help enhance your inner athlete, regardless of your level of proficiency.

Introduction:

Ayurveda is a 5,000-year-old system of natural healing that has its origins in the Vedic culture of India. Although suppressed during years of foreign occupation, Ayurveda has been enjoying a major resurgence in both its native land and throughout the world. Tibetan medicine and Traditional Chinese Medicine both have their roots in Ayurveda. Early Greek medicine also embraced many concepts originally described in the classical ayurvedic medical texts dating back several thousands of years.

More than a mere system of treating illness, Ayurveda is a science of life (Ayur = life, Veda = science or knowledge). It offers a body of wisdom designed to help people stay vital while realizing their full human potential. Providing guidelines on ideal daily and seasonal routines, diet, behavior and the proper use of our senses, Ayurveda reminds us that health is the balanced and dynamic integration between our environment, body, mind, and spirit.

Enhancing Athletic Performance with Ayurveda:

Vata:

Principle quality—Movement:

Vata is predominantly made up of air and is known as the king dosha, as it governs all movement—clearly a major factor in any athletic endeavor. When out of balance, vata can cause havoc and turn a world-class athlete into a quivering mess. Having a strong influence on the central nervous system, excess vata can physically throw off timing and mentally create anxiety and the all too common monkey mind! We've all seen talented athletes "choke" just at that moment of truth. Although the root cause of this usually lies in deeper subconscious belief structures, vata's distracting vacillations in the mind can nonetheless take an athlete from being in the zone to being a zombie. If I had a buck for every time I've heard an athlete say "if I could only get out of my own way" I'd be...well you get the point. So what do they mean? What athletes (and anyone for that matter) are referring to is mainly getting out of the way of the negative dialogue (NOISE!) in their head that interrupts and often sabotages performance. The incessant diatribe of "don't miss," "don't mess this up," "what will they think of me," "what happens if ... (fill in the negative outcome)," and so forth. Although this is all an intrinsic part of the human ego, when vata is out of whack, all this mental chatter gets exacerbated. So the number one place to start enhancing your performance is to bring down vata so you can stay calm, focused, and most importantly present.

Signs that your athletic performance is being affected by Vata:

You're thinking about the results too much (getting ahead of yourself), your timing is off, everything seems to be moving quickly, you feel nervous or anxious, you feel dizzy or light-headed, you've lost consistency, you're experiencing degenerative issues—aches and pains, loss of strength, stability, and stamina.

Things to avoid that will increase Vata:

Lack of sleep, irregularity in meal, sleep, or training times and so forth, dehydration, stimulants (for example, caffeine), dry/cold foods (like crackers or salads), excess travel, excess talking, overuse of the senses (smart phone and social media addiction), resisting natural urges, exposure to cold, over exertion & multitasking.

Things to encourage that will decrease Vata:

Quality rest, good routine (sleep, meals, regular bowel movements!), meditation, time in mother nature, oil massage, eating fresh, warm, nourishing foods (soups and stews), proper hydration, good friends and loving community. Breathe and slow down.

Pitta:

Principle Quality—Transformation

Pitta is made up predominantly of fire. Have you ever seen an athlete get upset?? Or dare I ask, someone in your own house? Never, right?!! Welcome to pitta! Just like any dosha, pitta has its plusses and minuses and is an intrinsic part of athletic performance. Although a generalization, most athletes are pitta dominant. Pitta gives us the quality of drive and that competitive spirit—the desire to bury your best friend on a tennis court or achieve bragging rights in a “friendly” game of HORSE. Its tenacity can drive athletes to the top but its potency can equally lead to their demise. Pitta “burns”—not only your opponent but also yourself if not kept in check. In the world of athletic performance, pitta oscillates between the victor and the self-saboteur. The trick, as with anything in Ayurveda is...balance. Driven and yet not maniacal, competitive but not tyrannical, focused but not obsessed. Pitta can give you that winning edge, but it can also cut you in the process if you get too intense.

Signs that your athletic performance is being affected by Pitta:

You're getting angry at virtually anything, your performance is never perfect enough, you're obsessing over your activity and working too hard, you feel frustrated and are about to break something (assuming you haven't already!), you're experiencing inflammation—mentally and physically.

Things to avoid that will increase Pitta:

Too much heat (hot weather, hot yoga, too much computer work, and so forth), late nights, alcohol, excess work, stress, skipping meals, hot spicy foods, fermented foods, and pressure situations.

Things to encourage that will decrease Pitta:

Chill axing, cool weather, cool/cold showers or swimming, cool/soothing foods, meditation, anything to inspire calmness, moonlit walks, earthing (standing barefoot in good quality damp soil—I know that might sound whacky but you pittas out there, try it...you're welcome!), good hydration, loving relationships, fresh organic clean foods, and soothing music.

Kapha:

Principle Quality—Stability/Structure

Where would we be without you? A ball of swirling flames!! Kapha is that grounding and soothing force in our lives. Think of that nurturing friend of yours who is always there for you, invariably with a cup of tea and some fattening treats! Kapha is nourishing, lubricating, rejuvenating, and replenishing. It heals us after our athletic endeavors. Kapha gives stability and endurance to our body and steadiness to our mind. Kapha athletes tend to be consistent. Trouble is they can be consistently bad or

good! It takes work to move kapha as it is the heaviest of the doshas. For that reason, kapha athletes equally tend to be bigger and slower, but also much stronger and with greater stamina than their fellow dosha counterparts. Think of the 300lb+ line backer versus the more speedy and nimble vata/pitta wide-receiver. But regardless of your dosha, kapha is crucial for enhancing performance by providing routine, a strong foundation, and the fortitude to deal with adversity and losses.

Signs that your athletic performance is being affected by Kapha:

When you don't even have any athletic performance (because you're too lazy to bother!), you feel lethargic and don't want to train; your mind feels cloudy, you're getting depressed about your results, eating and drinking seem way more appealing than competing.

Things to avoid that will increase Kapha:

Stagnation, laziness, lethargy, cold heavy foods (dairy), cold damp weather, sweet foods, overeating, over-drinking, and excess sleep.

Things to encourage that will decrease Kapha:

Activity and exercise (get moving!), getting up at sunrise, light, hot, spicy foods, getting out and about, and variety in life.

Conclusion:

Many scientific studies confirm what Ayurveda has known for thousands of years: **Regular exercise develops muscle strength and posture, reduces body fat, improves digestion (Agni) and sleep, boosts the immune system, prevents sluggishness, and delays aging.** The Ayurvedic texts describe the benefit of daily physical exercise as 'sthiraiva', or stability. This not only refers to physical stability, but also mental, intellectual and emotional.

Exercise clears and strengthens the 'shrotas' (transport channels in the physiology in which metabolism takes place); blockages and congestion are relieved, stress is reduced, and our sense of wellbeing is improved.

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WHAT ARE THE BENEFITS OF PHYSICAL EDUCATION IN SCHOOL?

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Abstract:

It is no secret that physical activity is necessary to a person's well-being. Because children are continuously developing physically and emotionally, they are especially affected by the benefits of activity – and inversely, the negative effects of inactivity. Educators can control the amount of exercise a child gets at home no more than they can control his eating habits or his family situation, and according to numerous studies, many children are neither active at home nor at school. Consequently, it is vital that schools provide physical education programs to ensure that each child stays active. First lady Michelle Obama's initiative Let's Move! Reports that nearly one-third of U.S. children are overweight or obese, and that “schools are a key setting for kids to get their 60 minutes of play with moderate to vigorous activity, given the significant portion of time they spend there.”

Keywords: Physical Education & School.

Introduction:

Physical education refers to the process of imparting systematic instructions in physical exercise, sports, games, and hygiene. The term is generally used for the physical education programs at school and colleges. Education aims at the training of the body, mind, and conduct of a student. To keep a healthy mind within a healthy body, a student needs regular physical exercise. The brain of students gets tired after schoolwork. His mind refuses to work. Therefore, for diversion and refreshment of mind, he requires some organized forms of physical and mental work.

Physical Health:

Physical education programs in schools directly benefit students' physical health. Getting the recommended amount of exercise combats obesity, which subsequently reduces the risk for diabetes, heart disease, asthma, sleep disorders and other illnesses. Regular exercise also contributes to cardiovascular health and promotes muscle and bone development. According to the National Association for Sport and Physical Education, school PE programs should require both fitness and cognitive assessments. In addition to participating in physical activity, students in PE learn the fundamentals of a healthful lifestyle, the building blocks upon which they can develop into healthy, knowledgeable adults.

Academic Performance:

Though a lack of attention on PE is often justified as an opportunity to spend more time in the classroom, studies show that physical activity contributes to improved academic performance. Regular activity during the school day is strongly associated with higher concentration levels as well as more directed, composed behavior. A statewide policy in North Carolina required that children from kindergarten to eighth grade participate in 30 minutes of physical activity each day. A survey of school representatives from 106 of the state's school districts reported that the most recognizable benefit of the mandate was "improved academic focus."

Social Assimilation:

Activities in PE help children develop healthful social interactions. From a young age, children learn cooperation through group activities and form a positive sense of identity as part of a team. Such group activities are continually important as children grow older. The International Platform on Sport and Development states that "sport has been used as a practical tool to engage young people in their communities through volunteering, resulting in higher levels of leadership, community engagement and altruism among young people." Sportanddev.org also notes that positive character development through group physical activities depends on the program curriculum.

Mental Health:

The benefits of PE to a child's mental health are both complex and comprehensive. Improved physical health, academics and social interactions all contribute to good mental health. Physical activity sets the stage for a good night's sleep, while obesity, caused in part by inactivity, is linked to sleep apnea. Sleep deprivation negatively affects the body's immune function, aids in memory consolidation and may cause irritability and impatience. Regular physical activity, in addition to adequate sleep, provide more energy to participate in hobbies and interact with others.

Conclusion:

In conclusion, children are becoming overweight due to the fact that they do not participate in physical activity or know the importance of physical education. Since, children are becoming overweight parents need to have their children participating in physical activity from birth because physical education will be taught to their children when they start attending school. Teachers that teach physical education will teach students how to take care of themselves properly. This is important because when someone is educated about the importance of their health then it will cause them to live a healthy lifestyle. With that being said, parents, teachers, and other adults need to emphasize the importance of education in schools.

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CAN REGULAR YOGA PRACTICE IMPROVE SPORTS PERFORMANCE?

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Abstract:

If you are looking for a creative way to get strength and resistance training, while improving range of motion and balance, yoga may be a good addition to your workouts. Yoga may be the perfect cross-training method for athletes of all sports. Yoga can help athletes develop better breathing techniques while it improves balance, flexibility, core strength, and even endurance.

Introduction:

Imagine an activity that increases your flexibility, strengthens your muscles, centers your thoughts, and relaxes and calms you. Yoga does all that and more! In this article, I will review a brief history and the philosophy of yoga, the different types of yoga, the benefits, equipment you need to do it, where to do it, how to get started, and a whole lot more. Yoga is an ancient physical and spiritual discipline and branch of philosophy that originated in India reportedly more than 5,000 years ago. The word yoga comes from the Sanskrit word yuj, which means to yoke, join, or unite. The Iyengar School of yoga defines yuj as the "joining or integrating of all aspects of the individual - body with mind and mind with soul - to achieve a happy, balanced and useful life." The ultimate aim of yoga, they claim, is to reach kaivalya (emancipation or ultimate freedom).

Benefits of Yoga for Athletes:

Develop deep, relaxed Breathing:

If you participate competitively in sport or simply join the occasional fun run on a whim you are aware of the impact breathing can have on performance. Deep, relaxed breathing is the foundation of reducing performance anxiety and improving concentration. Yoga will help you develop a habit of breathing correctly. Yoga practice integrates the mind-body connection and athletes can benefit from this combination of skills training.

Increase Core Strength:

Yoga poses are all about building core strength. The slow, focused movements require a strong midsection and the isometric contractions of many exercises will add a new form of resistance training to your typical machine-based workouts.

Increase Flexibility and Range of Motion:

Yoga routines incorporate slow, steady flexibility exercise that is ideal for athletes. Frequent yoga training may increase flexibility, and range of motion while relieving muscle tension. Whether you are a runner or a golfer, improved range of motion can often help improve performance.

Improve your Balance:

Yoga is a perfect way to incorporate balance exercises into your training routine. Balance exercises are often overlooked by athletes but are one of the most effective ways to correct muscle imbalance or body mechanic problems. With most sports and weight training routines you tend to perform repetitive motions that develop some muscle groups while others are ignored. Yoga can fix these imbalances.

It's great Cross Training:

Yoga is a great low-impact way to cross train. Cross training is necessary for athletes who do the same sport or exercise routine year-round. Adding new exercises can help reduce injury, relieve training boredom, add variety and help recover from hard aerobic or strength workouts. Yoga can be done at a high or low intensity and there are hundreds of postures that can provide a workout for any athletic need.

Something for Everyone:

There are many styles of yoga that range from very dynamic, active, movements that go from one posture to another (and result in a thorough aerobic workout) to more slow-paced practices that hold postures for several minutes and form an intense strength training and balance workout.

Conclusion:

While yoga is an excellent exercise option, it isn't without risk so you need to learn how to **prevent yoga injuries**. While much of the benefit from yoga practice is still based on subjective feedback from participants, more research is looking closely at positive health outcomes from yoga. Studies reported by the National Center for Complementary and Alternative Medicine of the National Institutes of Health have linked yoga practice with decreased low back pain and less reported chronic pain from arthritis, headaches, and carpal tunnel syndrome, as well as lower blood pressure, heart, breathing rates, and reduced insomnia.

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IMPORTANCE OF YOGA FOR SPORTS PERSONS

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Abstract:

As we all know that Yoga is a good practice that helps in improving physical and mental levels of individuals through various postures. A sportsperson can reach a certain level through his/her skill, but if they want to improve further or take their game to another level, fitness is the key. And yoga is the perfect answer to improve the fitness in sportspersons. It strengthens various parts of the body as well as improves flexibility. Some legend of sports like Novak Djokovic of tennis and Virat Kohli of cricketa give all the credits to Yoga for their success.

Introduction:

Yoga poses are great to strengthen and relax the body, however there's a lot more to Yoga than that. Derived from the Sankrit word 'yuj' which means 'to unite or integrate'; yoga is a 5,000-year-old Indian body of knowledge. Yoga is all about harmonizing the body with the mind and breath through the means of various breathing exercises, yoga poses (asanas) and meditation.

Here, is how Yoga helps in improving the performance of sportspersons:-

Flexibility:

Yoga helps in increasing the flexibility of sportspersons. Yoga smoothens the spinal cord and strengthens the core. It results in fewer injuries.

Better mental Health:

Yoga helps a sportsperson in getting better mental health as a person through a good practice of Yoga can handle all kind of situations be it easy situations as well as tough situations. Yoga also helps in combating with depression and achieving peace.

Coordination:

Yoga helps in getting better alignment of all body parts. This helps in improving coordination of all body parts. For instance, in table tennis the hand eye coordination plays a key role and a player who does yoga on a daily basis will have better coordination of hand and eye which can be quite useful in improving his performance.

Improves Strength:

Mostly all the games require strength. Gymming makes the players body stiff which affects their performance. To remove that stiffness and continue the gym work, sportspersons engage themselves in Yoga.

Conclusion:

All these points tell us what differs a player from a champion. And what a player needs to take his/her game to the next level. If there is

the successful implementation of Yoga in the life of sportspersons, then they can reach greater heights in their respective career.

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CAN ALCOHOL AFFECT SPORTS PERFORMANCE AND FITNESS LEVELS OF ATHLETES

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Abstract:

Alcohol consumption is a major concern in the sports world. It remains one of the most abused drugs among athletes despite the well-known negative effects it can have on the mind and body. Drinking often begins among athletes during the high school years. If you play sports, it's essential that you understand how alcohol can damage -- even destroy -- your athletic ambitions.

Effects of alcohol on sport performance:

Overall, alcohol is detrimental to sports performance because of how it affects the body during exercise. It does this in two main ways. Firstly, because alcohol is a diuretic, drinking too much can lead to dehydration because the alcohol makes your kidney produce more urine. Exercising soon after drinking alcohol can make this dehydration worse because you sweat as your body temperature rises. Combined, sweating and the diuretic effect of exercise make dehydration much more likely. You need to be hydrated when you exercise to maintain the flow of blood through your body, which is essential for circulating oxygen and nutrients to your muscles.

"Dehydration leads to reduced performance," says Professor Greg Whyte, an expert in sports performance. "Hydration also helps control your body temperature so you're more likely to overheat if you've been drinking alcohol."

Secondly, alcohol interferes with the way your body makes energy. When you're metabolizing, or breaking down alcohol, the liver can't produce as much glucose, which means you have low levels of blood sugar. Exercise requires high levels of sugar to give you energy. If your liver isn't producing enough glucose, your performance will be adversely affected. "If your body is forced to run from your supplies of fat rather than blood sugar, you will be slower and have less energy and won't be able to exercise as intensely," says Professor Whyte. As a result, your coordination, dexterity, concentration and reactions could be adversely affected too. Both of these effects are immediate which is why it's not advised to exercise or compete in sport soon after drinking alcohol.

Exercising the day after the night before:

Drinking alcohol the night before could have a negative influence on your performance the following day. Sports dietitian Jane Griffin says: "It's not possible to perform at your best if you're feeling any of the effects normally associated with a hangover such as dehydration, a headache and hypersensitivity to outside stimuli, such as light and sound."

Trying to avoid a hangover? Get some simple tips here:

Even if you're not experiencing the symptoms of a hangover, elite sports nutritionist Matt Lovall adds that "exercising the day after drinking alcohol can mean you have an all-round lower quality training session or sporting activity." You'll lack strength and power, be less likely to make split second decisions and more likely to feel tired quicker because your body won't be able to clear out the lactic acid you produce when you exercise. "This is because your liver will be working harder to get rid of the toxic by-products of alcohol in your system," explains Lovall. For all of these reasons, experts suggest avoiding alcohol the night before exercise whether you're due to go for a heavy session at the gym or compete in a team game. However, if you do decide to drink, both Lovall and Griffin advise sticking to just one drink with food. "I would say with whether you have a drink the day before a training session or workout – you make the choice. But definitely think twice before drinking the day before a competition or match," says Griffin. Similarly, drinking after exercise is not advisable if you haven't consumed enough water to replace the fluids you lost. Professor Whyte recommends sticking to the government's low risk alcohol unit guidelines and alternating with soft drinks. He warns that having a greater amount than this after exercise is more likely to make you crave stodgy high in calorie foods – which could affect your sports performance later down the line if you put on weight as a result. Drinking too much and eating calorific food will cancel out the health gains of the exercise your body would have benefited from.

Longer-term effects:

Indeed, alcohol is high in sugar which means alcohol contains lots of calories – seven calories a gram in fact, almost as many as pure fat. "If your aim in the gym or through exercise is weight management, then it seems paradoxical to consume 'empty' calories in liquid form," says Professor Whyte. Alcohol can also slow down the amount of calories you're able to burn through exercise. Because your body isn't designed to store alcohol, it tries to expel it as quickly as possible. This gets in the way of other processes, including absorbing nutrients in food and burning fat.

Muscle gain can be affected too. Alcohol can disrupt sleep patterns and growth hormones, vital for muscle growth, are released while you're in deep sleep. It could also reduce the amount of testosterone – a hormone you need to gain muscles – which you have in your blood. "And drinking alcohol to excess can poison muscle fibers which means they don't adapt like they should do for up to three days," says Lovtll.

Alcohol and your heart rate:

Most worryingly, drinking can increase the potential for unusual heart rhythms. This is a risk which significantly increases during exercise up to two days after heavy alcohol consumption. "How much you need to drink to be at risk depends on the individual, but the risk increases if you are an irregular drinker," says Professor Whyte. It's because the activity itself already increases your heart rate and with a lot

of alcohol in your system, you put extra stress on the organ. Other long-term impacts of alcohol such as heart disease, cancer and liver disease, could stop you taking part in exercise and sport altogether.

Drinking alcohol while recovering from a sports injury:

Sports performance is also impaired when you drink after you've had an injury. You'll be out of action for longer because the recovery process slows down. "It's difficult to quantify how much you have to drink but we know that alcohol causes the blood vessels to the skin, arms and legs to open up," explains Griffin. "The increased blood supply makes an injury bleed and swell even more."

Conclusion:

Fitness doesn't require that you swear off alcohol completely; of course you're probably going to have a drink every now and again with your friends or at a party—that is if you're of age. But before you go bar hopping or get crazy at a party, consider the detrimental effects the excess alcohol could have on your fitness—your progress could be set back pretty significantly.

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TYPES OF DIABETES MELLITUS AND YOGIC MANAGEMENT

Dr. Kasturi D.Rajaput

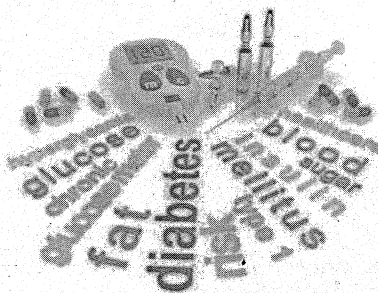
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ABSTRACT

Diabetes Mellitus is a metabolic disorder characterized by increased concentration of glucose in the blood due to absolute or relative deficiency of Insulin. Diabetes Mellitus (DM) literally means "sweet urine". Type I Diabetes Mellitus – Insulin Dependent Diabetes Mellitus (IDDM). Type II Diabetes Mellitus – Non Insulin Dependent Diabetes Mellitus (NIDDM). Yoga is suited for both types of DM. In IDDM asanas help to prevent an increase in insulin requirement. In NIDDM, asanas help to normalize blood sugar due to the high intensity workout. In the initial stage the patient can start yoga practice without stopping the medicines or injections. After practicing yoga you can gradually reduce taking medicines with the consultation of the Physicians. Regular yoga practice helps to increase glucose utilization. It also helps to attain ideal body weight. It develops stamina and provides a sense of well being.

KEYWORDS: Diabetes mellitus , High Blood Pressure, Fatigue and Suryanamaskara.

DIABETES MELLITUS



Introduction

Therapeutic yoga, a system of self treatment. Malfunctioning of the body system is diseases. Diabetes

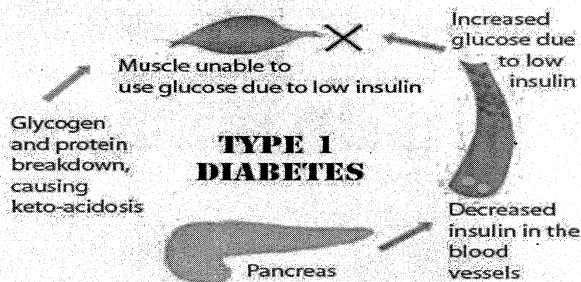
Mellitus is a metabolic disorder characterized by increased concentration of glucose in the blood due to absolute or relative deficiency of Insulin. Diabetes Mellitus (DM) literally means "sweet urine".

Metabolism is a biological process by which digested food material is made available for growth and energy. Most of the food we eat is broken down into glucose. Glucose is the main source of fuel for the body. After digestion, glucose is absorbed in the bloodstream, where cells use it for energy and growth. Insulin is required by the cells to utilize glucose in the body. Insulin is a hormone produced by the pancreas, a large gland behind the stomach.

When the food is taken, a part of it is converted into glucose and mixed with blood. Pancreas is stimulated to secrete the right amount of insulin to carry glucose from blood to the cells. In case of Diabetes Mellitus, either insulin secretion from the pancreas is disturbed or its utilization by the cells. As a result, glucose cannot be utilized by the body but remains in the blood, leading to hyperglycemia (increased concentration of glucose in the blood). The excess glucose in the blood is excreted through the kidneys leading to Glycosuria.

Types

Type I Diabetes Mellitus



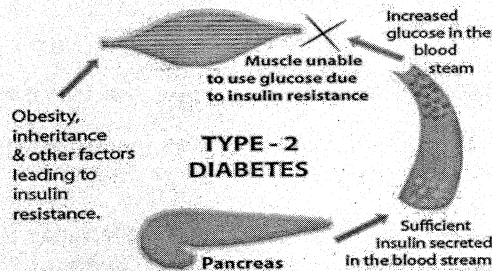
Insulin Dependent Diabetes Mellitus (IDDM) Juvenile Onset.

- The insulin administration is compulsory.
- It can occur at any age, commonly occurs during younger age.
- It occurs due to an absolute or relative deficiency of Insulin because of malfunctioning of beta cells of the pancreas.

The causative factors are

- Genetic factors
- Environmental factors – Diet, Stress, Viruses infecting the pancreas

Type II Diabetes Mellitus



Non Insulin Dependent Diabetes Mellitus (NIDDM) Maturity Onset.

- This type is more common
- Occurs after age of 40
- Here additional insulin is not required
- The hormone insulin at near normal or even above normal.

It occurs due to inability of the cells to utilize the Insulin because of impaired functioning of their receptors, a condition called Insulin resistance. The result is the same as that of Type I Diabetes Mellitus – glucose builds up in the blood and the body cannot make efficient use of its main source of fuel. It usually occurs in middle aged and elderly individuals.

The causative factors are:

- High Blood Pressure
- High blood triglyceride (fat) levels
- Gestational diabetes
- High Fat diet
- High Alcohol intake
- Sedentary lifestyle
- Lack of exercise
- Obesity or being Overweight

Common symptoms of Diabetes Mellitus – Type I & II

- Excessive urination (Polyuria)
- Excessive eating (Polyphagia)
- Excessive Thirst (Polydipsia)
- Frozen shoulder
- Lethargy
- Unexplained Weight loss
- Fatigue

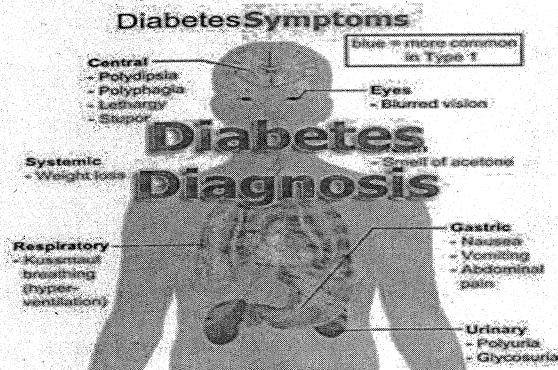
- Poor wound healing
- Blurry vision
- Infections

Risk factors for Diabetes Mellitus

- **Age** – the risk of Type II Diabetes mellitus increases with age beginning after age of 30.
- **Alcohol** – has been reported to worsen glucose tolerance in the elderly.
- **Low birth weight** – both male and female infants with low birth weight appear to be at increased risk for eventually developing type – II diabetes.
- **Diet and fiber** – people in many parts of the world who eat traditional diets high in fiber have a low risk of type II diabetes mellitus. Vegetarians who typically have high fiber diets, have been reported to be at low risk of being diagnosed with type II diabetes mellitus. Some of these foods (peas and beans) contain type of fiber that slows down the absorption of glucose into the blood, protecting the body from large sudden increases in glucose.
- **Diet and fat** – especially saturated fat, worsen glucose tolerance and increases the risk of type II diabetes, an effect that is not simply the result of weight gain caused by eating high-fat foods. In contrast, glucose tolerance has been improved by diets high in monounsaturated oils.
- **Family history** – people with a family history of diabetes mellitus are at increased risk for the disease, though not all type II diabetics have a family history.
- **Gestational diabetes** – Women who have had Diabetes mellitus temporarily during pregnancy are at increased risk for developing type II diabetes.
- **Obesity** – most people who develop type II diabetes mellitus are obese. People with excess abdominal fat have high risk of diabetes, even if their body weight is normal. Although excess abdominal fat does not stop insulin formation, it does make the body less sensitive to insulin. Excess weight can induce glucose intolerance in otherwise healthy people, and weight loss reverse this problem.
- **Impaired glucose tolerance** – many people who are not diabetic have glucose intolerance – blood sugar levels that are slightly above normal, accompanied by elevated blood insulin levels. People with impaired glucose tolerance are at increased risk for type II diabetes, though only 20-50 % actually develops the disease.

- **Sedentary lifestyle** – sedentary people are more likely and exercisers less likely to develop type II diabetes. Exercises helps to lower diabetes mellitus risk by helping to control body fat while maintaining or improving insulin sensitivity.
- **Smoking** – smokers are more likely to become diabetic compared to nonsmokers.

How is diabetes diagnosed?



The fasting blood glucose (sugar) test is the preferred way to diagnose diabetes. It is easy to perform and convenient. After the person has fasted overnight (at least 8 hours), a single sample of blood is drawn and sent to the laboratory for analysis. This can also be done accurately in a doctor's office using a glucose meter.

- Normal fasting plasma glucose levels are less than 100 milligrams per deciliter (mg/dl).
- Fasting plasma glucose levels of more than 126 mg/dl on two or more tests on different days indicate diabetes.
- A random blood glucose test can also be used to diagnose diabetes. A blood glucose level of 200 mg/dl or higher indicates diabetes.

When fasting blood glucose stays above 100mg/dl, but in the range of 100-126mg/dl, this is known as impaired fasting glucose (IFG). While patients with IFG do not have the diagnosis of diabetes, this condition carries with it its own risks and concerns, and is addressed elsewhere.

The oral glucose tolerance test

Though not routinely used anymore, the oral glucose tolerance test (OGTT) is a gold standard for making the diagnosis of type 2 diabetes. It is still commonly used for diagnosing gestational diabetes and in conditions of pre-diabetes, such as polycystic ovary syndrome. With an oral glucose tolerance test, the person fasts overnight (at

least eight but not more than 16 hours). Then first, the fasting plasma glucose is tested. After this test, the person receives 75 grams of glucose (100 grams for pregnant women). There are several methods employed by obstetricians to do this test, but the one described here is standard. Usually, the glucose is in a sweet-tasting liquid that the person drinks. Blood samples are taken at specific intervals to measure the blood glucose.

History of the patient

- Collect sociological data following into that,
- Defining pain
- Any other symptoms
- Causes of pain
- Assessing pain
- Management of pain
- Any regular exercises like walking, yoga or any other
- Effect of pain on everyday life

Screening

Diabetes screening is recommended for many people at various stages of life, and for those with any of several risk factors. The screening test varies according to circumstances and local policy, and may be a random blood glucose test, a fasting blood glucose test, a blood glucose test two hours after 75 g of glucose, or an even more formal glucose tolerance test. Many healthcare providers recommend universal screening for adults at age 40 or 50, and often periodically thereafter. Earlier screening is typically recommended for those with risk factors such as obesity, family history of diabetes.

Many medical conditions are associated with diabetes and warrant screening. A partial list includes: high blood pressure, elevated cholesterol levels, coronary artery disease, past gestational diabetes, polycystic ovary syndrome, chronic pancreatitis, fatty liver, hemochromatosis, cystic fibrosis, several mitochondrial neuropathies and myopathies, myotonic dystrophy are some of the inherited forms of neonatal hyperinsulinism. The risk of diabetes is higher with chronic use of several medications, including high-dose glucocorticoids, some chemotherapy agents, as well as some of the antipsychotics and mood stabilizers.

People with a confirmed diagnosis of diabetes are tested routinely for complications. This includes yearly urine testing for microalbuminuria and examination of the retina of the eye for retinopathy. Yogic

Management of Diabetes Mellitus



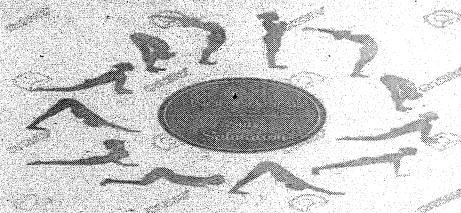
- Yoga is suited for both types of DM
- In IDDM asanas help to prevent an increase in insulin requirement.
- In NIDDM, asanas help to normalize blood sugar due to the high intensity workout.
- In the initial stage the patient can start yoga practice without stopping the medicines or injections.
- After practicing yoga you can gradually reduce taking medicines with the consultation of the Physicians.
- Regular yoga practice helps to increase glucose utilization. It also helps to attain ideal body weight. It develops stamina and provides a sense of well being.

Specific practices recommended for the DM

Om chanting Prayer

- Try to draw the wavering mind and it helps to steady the same.
- Induce positive thinking of "total surrenderness", thereby zeroing the ego consciousness. This is more important in the stress reduction process.

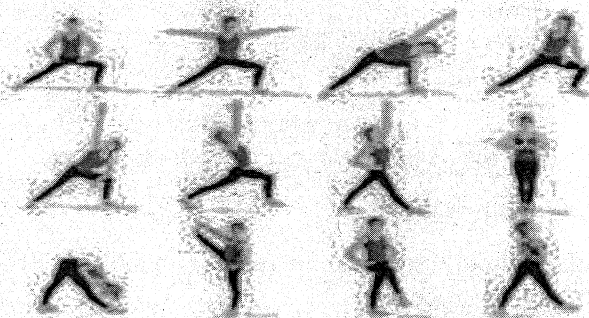
Sun Salutation



The practice of Suryanamaskara can give a patient the complete exercise regimen. One round of Sun Salutation consists of twelve postures. It invigorates the whole body by exercising each and every part of the body. It helps to burn out the excessive calorie.

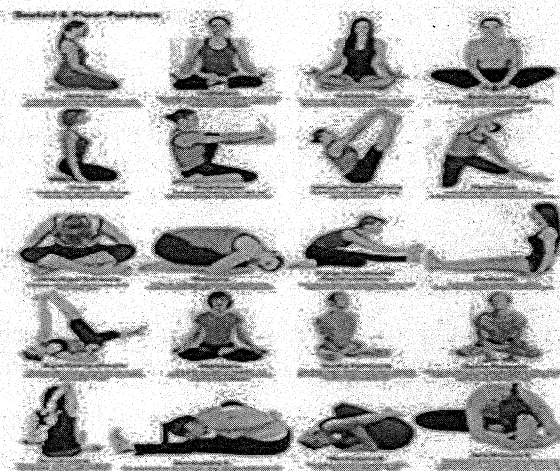
Asanas

Standing Asanas



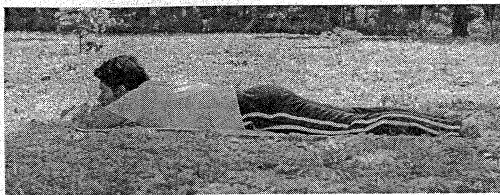
- Tadasana
- Ardhakaticakrasana
- Trikonasana

Sitting Asanas



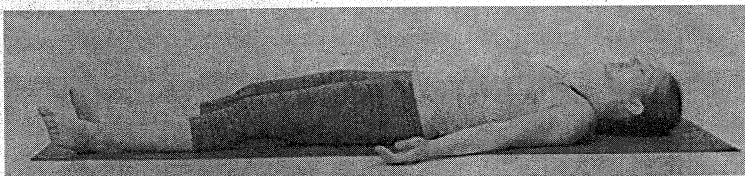
- Dandasana
- Vajrasana
- Baddhakonasana
- Paschimottanasana
- Ustrasana
- Gomukhasana
- Ardha Matsyendrasana
- Janu Sirsasana

Prone (Abdominal lie down position)



- Makarasana
- Bhujangasana
- Salabhasana
- Dhanurasana

Supine Asanas



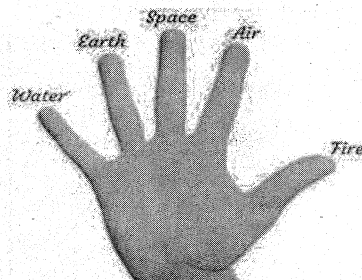
- Navasana
- Matsyasana
- Suptaveerasana
- Sarvangasana
- Halasana
- Savasana

Pranayama

- Vibhaga Pranayama (Sectional Breathing)
- Nadishudi (Balancing Pranayama)
- Suryabedana
- Bhastrika
- Brahmari

Mudra

- Chin Mudra
- Pankaj mudra
- Apana Mudra
- Varuna Mudra
- Vayu Mudra
- Linga Mudra
- Sangu Mudra



Nauli



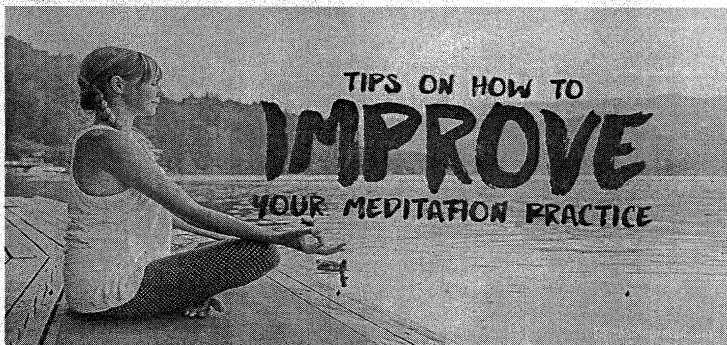
Nauli exercises the abdominal recti muscles and stimulates the functions of the internal organs.

Yoga Nidra



It is a special type of relaxation; also known as conscious sleep. This helps to eliminate the stress and tension from the subconscious level.

Meditation Practice



- Meditation for 15-20 minutes

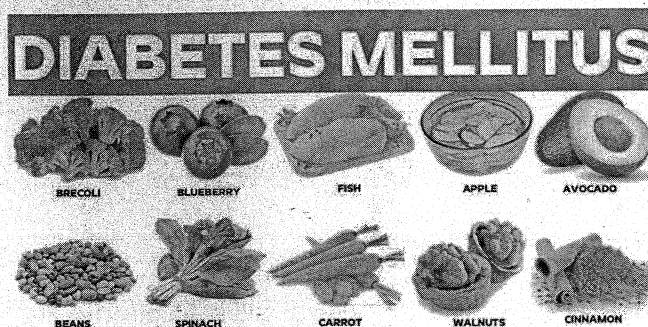
Meditation is being considered as panacea for most of the health problems of the present time. It may be true in a real sense at least in psychosomatic and stress related disorders. The advantages of meditation are manifold. A review of the scientific literature on meditation reveals that it can reduce stress and anxiety, enhance motor

reflexes, increase motor control, increase exercise tolerance, sharpen perceptions, increase awareness, improve concentration, maintain health, provide a general positive outlook on life and foster the development of a sense of personal meaning in the world. In general, meditation produces a reduction in multiple biological systems, resulting in a state of relaxation.

Scientific studies reveal that meditation produces a specific physiological response pattern that involves various biological systems. The mechanisms most frequently suggested mediating or producing meditative effects to include metabolic, autonomic, endocrine, neurological and psychological observations.

A classical traditional method of meditation is called OM meditation. It is done by having OM as the object of meditation.

Diet in Diabetes Mellitus



- Diet plays an important role in the management of Diabetes as it exerts a direct influence on the blood glucose level. The goal of diet therapy is to maintain and prolong a healthy, productive and happy life.
- Diabetes diet should be individualized based on the nutritional status of the patient. It should be practical, suited to the needs and can be followed to meet the dietary goals.
- To successfully control the weight, encourage a diabetic patient to develop life-long, healthy eating and healthy life style habits.
- If parents are diabetic then one has to be extra careful regarding the weight as soon as he crosses 40 years of age. If he is already obese/overweight by 40 % then he is prone to develop diabetes. So keep weight under control.
- Regulate the diet as far as possible. Avoid simple sugars such as white sugar, honey, glucose and sweets and eat complex carbohydrates such as wheat, oatmeal, corn, brown rice and beans. Avoid processed food and eat foods with lots of fibre and nutrients.

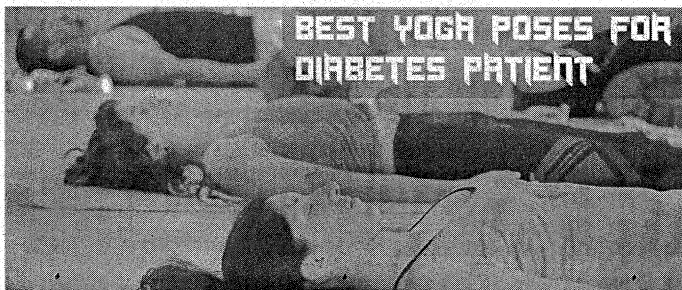
- Regular exercise and balanced diet keep the diabetes under control.
- To improve the quality of life, don't stop the medications without doctor's advice.

Prevent Diabetes by encouraging the Diabetic patient to



- Maintaining ideal body weight
- Avoid excess sugar, salt and oily foods
- Take small bites and chew foods thoroughly
- Eat protein rich food in each meal
- Eat wisely at social gatherings and restaurants
- Do yoga daily
- Avoid aerated and alcoholic drinks
- Avoid the use of tobacco and other harmful drugs
- Avoid stress, enjoy good music, mediate and have positive attitude towards life.

Recommendations regarding the practice of Yoga by Diabetics



1. The patient must learn to control his or herself of Diabetes in a holistic manner, recognizing the effects if stress, emotional imbalance, dietary and living habits on the disease condition.
2. Start with simple movements and positions before progressing gradually to complicated postures.

3. Throughout the program, monitor glucose levels. Take appropriate medicinal dosages as and when required. After several weeks, one may be able to reduce such dosages with the consultation of the physician.
4. Practice in the morning and the evening for 40 to 60 minutes, the recommended series of postures according to one's capacity. Practice before meals, but after consuming lucid liquids.
5. Avoid exertion i.e. heavy muscular activity. Perform the movements slowly and smoothly, stretching the limbs and joints, and gently compressing the abdomen, without straining. Maintain the postures for a comfortable length of time.
6. Focus on the breath during the maintenance period of the posture with the eyes closed or focused on one point as a means of learning to focus the mind and to manage stress and tension in the body.
7. Perform the savasana by completed relaxed pose on the back, systematically relaxing all the parts of the body at the end of the session or after completing aforementioned postures.
8. Obese patients can start with different asanas, cleansing processes, bhastrika pranayama and relaxation. Lean and thin patients should start with relaxation and pranayama and practiced in a relaxed manner.

Conclusion

- ◆ Yoga is an ancient discipline designed to bring balance and health to the physical, mental, emotional, and spiritual dimensions of the individual.
- ◆ A yoga therapy has the potential to enhance the beneficial effects of standard medical management of DM.
- ◆ The improvement in various biochemical indices and stress reduction by practicing yoga can enable a person with a better healthy living.

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YOGIC MANAGEMENT FOR BACK PAIN

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ABSTRACT

Backache a very common problem can be caused due to bad sitting posture, tension, stress, uncomfortable shoes, poor nutrition, lack of exercise or over weight etc., The pain can be found in both young and old and if not taken care of can turn chronic. But it has been found that backache is fully and permanently cured by yogic treatment. Conditions associated with low back pain are bulging disc, sciatica, osteoporosis, skeletal irregularities, fibromyalgia, spondylitis, herniated disc, disc degeneration, lumbar spinal stenosis and spondylo listhesis.

KEYWORDS: Back Pain, Yogasanas, Pranayama, Meditation and yoga nidra

Introduction

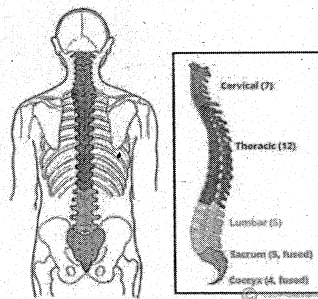
Back pain (also known "dorsalgia") is pain felt in the back that may originate from the muscles, nerves, bones, joints or other structures in the spine.

Back pain is one of humanity's most frequent complaints. About nine out of ten adults experience back pain at some point in their life, and five out of ten working adults have back pain every year.

The pain may have a sudden onset or it can be a chronic pain, it can be felt constantly or intermittently, stay in one place or refer or radiate to other areas. It may be a dull ache, or a sharp or piercing or burning sensation. The pain may be felt in the neck (and might radiate into the arm and hand), in the upper back, or in the low back, (and might radiate into the leg or foot), and may include symptoms other than pain, such as weakness, numbness or tingling.

Structure of the Back

- The back is an intricate structure of bones, muscles and other tissues that form the posterior part of the body's trunk, from the neck to the pelvis. The centerpiece is the spinal column, which not only supports the upper body's weight but also houses and protects the spinal cord – the delicate nervous system structure that carries signals, control the body's movements and convey its sensations.



- The spaces between the vertebrae are maintained by round, spongy pads of cartilage called inter-vertebral discs that allow for flexibility in the lower back and act much like shock absorbers throughout the spinal column to cushion the bones as the

body moves. Bands of tissue known as ligaments and tendons hold the vertebrae in place and attach the muscles to the spinal column.

- Starting at the top, the spine has four regions:
 - The seven cervical or neck vertebrae (C1 – C7)
 - The 12 thoracic or upper back vertebrae (T1 – R12)
 - The five lumbar vertebrae (L1 – L5) which we know as the lower back and
 - The sacrum and coccyx, a group of bones fused together at the base of the spine.
 - The lumbar region of the back, where most back pain is felt, supports the weight of the upper body.

Causes of Lower Back Pain

- Pain can occur when, someone lifts something which is too heavy or overstretches, causing a pain, strain or spasm in one of the muscles or ligaments in the back. If the spine becomes overly strained or compressed, a disc may rupture or bulge outward. This rupture may put pressure on one of the more than 50 nerve roots of the spinal cord that control body movements and transmit signals from the body to the brain. When these nerve roots become compressed or irritated, back results.
- Most low back pain follows injury or trauma to the back, but pain may also be caused by degenerative conditions such as arthritis or disc disease, osteoporosis or other bone diseases, viral infection, irritation to joints and discs or congenital abnormalities in the spine. Obesity, smoking, weight gain during pregnancy, stress, poor physical condition, improper posture for doing a particular activity and poor sleeping position also may contribute to low back pain.

Conditions associated with low back pain

Conditions that may cause low back pain and require treatment by a physician or other health specialist include:

- **Bulging disc (also called protruding, herniated or ruptured disc):** The inter vertebral discs are under constant pressure. As discs degenerate and weaken, cartilage can bulge out or be pushed into the space containing the spinal cord or a nerve root, causing pain.
- **Sciatica:** It is a condition in which a herniated or ruptured disc presses on the sciatic nerve, the large nerve that extends down the spinal column to its exit point in the pelvis and carries nerve fibers to the leg. This compression causes shocklike or burning low back pain combined with pain through the buttocks and down one leg to below the knee, occasionally reaching the foot.
- **Osteoporosis:** It is a metabolic bone disease marked by progressive decrease in bone density and strength. Fracture of brittle, porous bones in the spine and hips

results when the body fails to produce new bone and or absorbs too much existing bone.

- **Skeletal irregularities:** This produce strain on the vertebrae and supporting muscles, tendons, ligaments and tissues supported by spinal column.
- **Fibromyalgia:** A chronic disorder characterized by widespread musculoskeletal pain, fatigue and multiple 'tender points', particularly in the neck, spine, shoulders and hips.
- **Spondylitis:** It refers to chronic backpain and stiffness caused by a severe infection or inflammation of the spinal joints.
- **Herniated Disc (Slipped disc):** A herniated (also called a slipped or ruptured) disc is a fragment of the disc nucleus, which is pushed out of the annulus, into the spinal canal through tear or rupture. Activity, aging or a mechanical problem in the spine can cause one of the discs to bulge out. When this occurs, the disc may 'pinch' or put pressure on a nerve root (pinched nerve) and thus causing pain.
- **Disc degeneration (Osteoarthritis in the Spine):** One of the most common disorders of the lower spine is disc degeneration or Osteoarthritis of the spine. As the body ages, the discs in the spine dehydrate or dry out and lose their ability to act as shock absorbers. The bones and ligaments that make up the spine also become less flexible and thicken. This is a part of the normal aging process and in itself is not abnormal.
- **Lumbar Spinal Stenosis:** Lumbar spinal stenosis (LSS) is a narrowing of the spinal canal, which compresses the nerves traveling through the lower back into the legs. While it may affect younger patients due to developmental causes, it is more often a degenerative condition that affects people of age 60 and above.
- **Spondylo-listhesis:** Degenerative spondylolisthesis (slippage of one vertebra over another) is caused by Osteoarthritis of the facet joints. Most commonly, this involves the L4 slipping over the L5 vertebra.
- Relaxation aimed at increasing the functional capacity of the weak muscles.

Types of Back Pain

Understanding how pain is defined is important in order to learn how to better control it. For the purposes of research and medical practice, pain can be separated into three categories:

- Acute pain
- Chronic pain

- Neuropathic pain

Acute pain

One common type of pain is acute pain, currently defined as pain lasting less than 3 to 6 months, or pain that is directly related to tissue damage. This is the kind of pain that is experienced from a paper cut or needle prick. Other examples of acute pain include:

- Touching a hot stove or iron. This pain will cause a fast, immediate, intense pain with an almost simultaneous withdrawal of the body part that is being burned. More of an aching pain might experience a few seconds after the initial pain and withdrawal.
- Smashing one's finger with a hammer. This pain is similar to that of touching a hot stove in that there is immediate pain, withdrawal and then "slower" aching pain.
- Labor pains. The pain during childbirth is acute and the cause is certainly identifiable.

The longer pain goes on the more susceptible it is to other influences and developing into a chronic pain problem. These influences include such things as the ongoing pain signal input to the nervous system even without tissue damage, lack of exercise (physical deconditioning), a person's thoughts about the pain, as well as emotional states such as depression and anxiety.

Acute backache is usually a variation upon this theme. This is back pain of sudden onset and agonizing severity, which renders the victim completely immobile and helpless. This pain can strike at any time, especially in those leading a sedentary lifestyle characterized by lack of exercise and overweight, both of which contribute to functional inadequacy of the back muscles. Acute back pain commonly arises after a trivial jolt or insignificant movement such as a cough or sneeze. Agonizing pain accompanies every subsequent back movement, to such an extent that movement becomes almost impossible.

This is by no means a rare occurrence, for statistics suggest that between 50 and 60% of the population will suffer just such an incident at some time in their life.

When one is in this predicament, the first thing to do is to get into bed as soon as possible. The muscles surrounding the injured area quickly go into spasm to provide a protective immobilizing splint, preventing all further movement of the area. By immediately getting into bed, the body demands are reduced and the muscles can safely relax a little.

In the acute situation this severe pain can be effectively relieved by aspirin. The bed should have a solid wooden supporting base underneath the mattress.

Application of heat to the affected area by fomentation or hot water bottle also brings relief. Stiffness can be avoided by gradually moving the position in bed from time to time. Alternatively, relief may be gained by applying a cold compress (ice blocks in a cloth are ideal) and some patients obtain best relief from alternating hot and cold compresses every few minutes. Gentle massage several times a day also facilitates recovery.

Ninety percent of cases of acute back pain will fully recover with a week of bed rest, with vast relief after a day or two. The problem then becomes one of preventing a recurrence and it is here that yoga proves of great benefit.

Chronic pain

There are at least two different types of chronic pain problems - chronic pain due to an identifiable pain generator (e.g. an injury), and chronic pain with no identifiable pain generator (e.g. the injury has healed).

Neuropathic pain

Neuropathic pain has only been investigated relatively recently. In most types of neuropathic pain, all signs of the original injury are usually gone and the pain that one feels is unrelated to an observable injury or condition. With this type of pain, certain nerves continue to send pain messages to the brain even though there is no ongoing tissue damage.

Yogic Management

Exercises for back pain relief:-

Many people believe that rest is best for a painful back, but actually, what your back really needs when it's hurt is exercise. Regular exercise relieves back pain by strengthening and stretching the muscles that support the spine and helps to prevent future injury. This is a use it or lose it situation: the more rest, the weaker your back gets, even if it is hurt. Studies have actually shown that can heal your back pain faster and get back to your regular activities with just two days. of rest. So let's look at some of the best exercises for relieving back pain

Yoga and back pain

The Yogic techniques incorporate a series of poses (Asanas), the breathing techniques (Pranayama) and other modalities for the overall health of a person. By adopting very basic and sometimes difficult body postures and breathing techniques of Yoga that provide the practitioner a number of physical and mental benefits.

A good, regular yoga practice will go far in relieving the stress and tension that sometimes cause mild back pain, and in fact, studies have shown that yoga is the

number one most effective exercise for relieving back pain. However, not all yoga poses relieve back pain, and some can in fact aggravate existing pain, so it is important to know which poses will be most helpful in relieving back pain. It is best to do these exercises under the supervision of a certified yoga instructor, and, if you encounter any problems with these poses, you should consult an expert. Even just one or two sessions with a yoga instructor can help, as an instructor will help you with your form and posture during poses. Here are some of the best yoga poses for relieving back pain. Each pose should be held from five to ten seconds, depending upon your level of comfort, and should be done on a mat or other soft, supportive surface.

Yoga helps to increase strength in specific muscles and muscle groups. Maintaining Yogic postures is not intended to be uncomfortable. Muscle strength improves by remaining in these Yogic positions and incorporating various movements. Many postures in Yoga gently strengthen the muscles of the back as well as the abdominal one. Back and abdominal muscles are essential components of the muscular network of the spine, helping the body to maintain proper upright posture and movement. When these muscles are well conditioned, back pain can be greatly reduced or avoided.

Yoga incorporates stretching and relaxation, which reduces tension in stresscarrying muscles. Within the pose, certain muscles flex, while others stretch, promoting relaxation and flexibility in muscles and joints. For people with lower back pain, stretching is very important. Yogic stretching increases blood flow, allowing nutrients to flow in, toxins to flow out and overall proper nourishment of the muscles and soft tissues in the lower back.

The quality of the breath in many ways determines the quality of the Yogic practices. This will emphasize a relaxed body and encourage strong circulation. The Yoga poses are meant to train the body to be healthy and supple. Consistent practice and application will result in improved posture and an increased sense of balance with head, shoulders and pelvis in proper alignment. Additionally, unlike many other forms of exercise, Yoga helps to stretch and strengthens both sides of the body equally.

Proper body alignment and good posture, which helps to maintain the natural curvature of the spine, is an important part of reducing or avoiding lower back pain. Awareness increases with Yogic practice. An increased awareness acts as a preventative measure, in that the individual will know what types of motions should and should not be avoided.

The techniques of Yoga are so well designed, which will give all possible movements to the spine. This will in turn help to maintain good health of the spine all the time. By this, the circulation and nerve current to that region improves and thereby helps for good nourishment.

There are several theories as to why a mental state of mind may affect Those suffering from back pain.

- Many believe that suffering from back pain increases because of perception. Negative psychological and emotional factors may not necessarily change the physiology of the back, but may tend to magnify a problem that already exists. Thus, reducing the perception of the pain (such as through meditation) can reduce the overall feeling of back pain.
- Some believe that psychological and emotional factors are the primary influence in the sensation of pain and can physically alter the body. For various reasons, high stress and negative emotions may actually cause back pain. This will in turn create negative psychological and emotional feelings, perpetuating the cycle.

In theory, Yoga helps people to concentrate their energy on breathing and maintaining posture. The methodical breathing increases oxygen flow to the brain and sets a rhythm between the body and mind. This action coupled with the poses and sometimes meditation is said to dissipate stress and anxiety, therefore, relieving back pain caused by psychological and emotional factors.

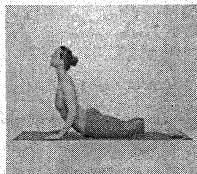
To be specific, the practices like pranayama will help in improving the defense system of the body. The specific pranayamas like Suryanadi will help better in the pain management. However, the cooling pranayamas like Chandranadi, Sitali and Sitkari have to be avoided, as these pranayamas may trigger the pain. By the integrated practice of Yogic techniques, the patient will become more capable to withstand the pain arising out of the neck and back derangement, as the Yogic practices are supposed to increase the threshold of the pain.

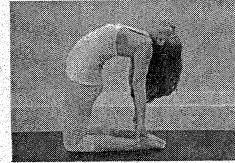
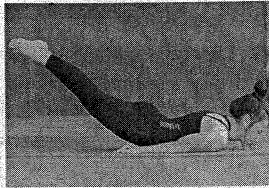
**The specific Yoga practices which are prescribed for these cases are as under:
Om chanting and Prayer:**

This practice will try to draw the wavering mind inward and helps to steady the same. The prayer will facilitate the positive thinking of "total surrenderness", thereby zeroing the ego consciousness. This is more important in the stress reduction process. The prayer also prepares the mind for proper practice of Yoga techniques.

Neck and Spinal Exercises

Yogasanas





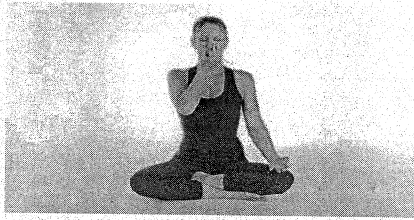
- Tadasana
- Urdhvahastottanasana
- Ardhakatichakrasana
- Ardhashakrasana
- Vajrasana
- Vakrasana
- Ushtrasana
- Gomukhasana
- Ardhamatsyendrasana
- Makarasana
- Bhujangasana
- Shalabhasana
- Dhanurasana
- Pavanamuktasana
- Setubandhasana
- Uttana Padasana
- Matsyasana
- Shavasana

Effects

Yogasanas are special patterns of body that stabilizes the mind through static stretching. The great seer Patanjali has said: 'sthira sukham asanam' - meaning asana (posture) should be stable and comfortable. Further, he explains that the asana should be effortless. Yogasanas are psycho-physical in nature, having an effect both on body and mind. They are not mere physical exercises. Asanas play a significant role in toning up the neuromuscular and glandular systems of the body to restore and maintain the vitality of different organs of the body. They also directly act up on the muscles, joints, ligaments and tendons. The regular practice of Yoga brings about remarkable amount of flexibility in the joints and muscles of body. The asanas also acts up on the spinal bones, spinal cord and associated nerves. They help to re-align the structure of the spine in case of any deformity.

Pranayama

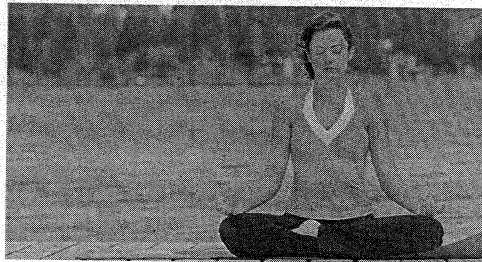
- Nadisuddhi Pranayama



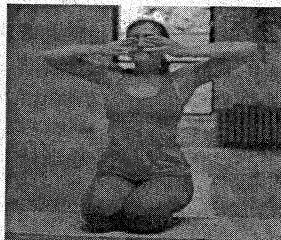
- Suryabhedana Pranayama



- Ujjayi Pranayama



- Bhramari Pranayama



Effects

The pranayama practice encourages the clear flow of prana - the vital force to each and every part of the body, thereby provides proper nourishment to the cells for their normal functioning. During the stress reaction, the pranic flow disturbs considerably and different pranayama practices help them to bring on the track. By the proper and

regular practice of pranayama, the autonomous nervous system could be well maintained. The autonomous nervous system acts like a hub of stress reaction.

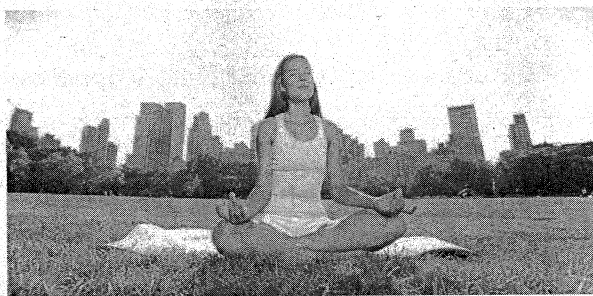
practice of pranayama can improve the defense mechanism by strengthening the immune system of the body. It can bring down the level of free radicals and stress hormones in the body, thereby limiting the process of stress and its complications. It can also provide vigour, vitality, sense of well beingness and positive attitudes.

Yoga Nidra



It is a special type of relaxation; also known as conscious sleep. This helps to take out the stress and tension from the subconscious level, thereby providing complete physical and mental relaxation.

Dhyana (Meditation)



Meditation is being considered as panacea for most of the health problems of the present time. It may be true in a real sense at least in psycho-somatic and stress related disorders. The advantages of meditation are manifold. A review of the scientific literature on meditation reveals that it can reduce stress and anxiety, enhance motor reflexes, increase motor control, increase exercise tolerance, sharpen perceptions, increase awareness, improve concentration, maintain health, provide a general positive outlook on life, and foster the development of a sense of personal meaning in the world. In general, meditation produces a reduction in multiple biological systems, resulting in a state of relaxation.

Scientific studies reveal that meditation produces a specific physiological response pattern that involves various biological systems. The mechanisms most frequently

suggested to mediate or produce meditative effects include metabolic, autonomic, endocrine, neurological and psychological observations.

The practices prescribed are: Breath awareness, Om Meditation or guided Meditation focusing on the affected part.

Conclusion

The Yogic techniques incorporate a series of poses (Asanas), the breathing techniques (Pranayama) and other modalities for the overall health of a person. By adopting very basic and sometimes difficult body postures and breathing techniques of Yoga that provide the practitioner a number of physical and mental benefits.

A good, regular yoga practice will go far in relieving the stress and tension that sometimes cause mild back pain, and in fact, studies have shown that yoga is the number one most effective exercise for relieving back pain.

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RESEARCH ARTICLE - ANALYSIS ON PERSONALITY TRAITS OF SPORTS MEN AND NON-SPORTS MEN OF SCHOOL IN TINSUKIA DISTRICT, ASSAM.

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Research Scholer, Bansthali Vidyapeeth, Rajasthan

Abstract

The purpose of this study was to compare the personality traits of sports and non-sports men of school level. The present study was conducted on the 50 sports and 50 non-sports men of school from Tinsukia district, Assam. On the basis of data available in the literature and with own experience and advice from researchers, academic experts the following hypothesis was formed that there would be significant difference in personality traits of sports and non-sports men at school level. The personality questionnaire developed by H. J. Eysenck in national psychological corporation was selected for the collection of data. It was found to be reliable to employ physical education teacher for collecting data, the analysis of data, collected by administering the questionnaire to all the subjects t-test was employed at 0.05 level of significant. The findings of the study stated that there was statistically significant difference in personality traits of the sports and non-sports men. It is clear that the mean of personality traits of sports men are significantly higher than the mean of personality traits of the non-sports men.

Keywords: Personality trait, sports men, non sports men, statistical, hypothesis, analysis, significant etc

Introduction

Personality defined as the set of habitual behaviors, cognitions and emotional patterns that evolve from biological and environmental factors. While there is no generally agreed upon definition of personality, most theories focus on motivation and psychological interactions with one's environment. Trait-based personality theories defined by Raymond Cattell personality as the traits that predict a person's behaviour. On the other hand, more behaviour based approaches define personality through learning and habits. Most theories view personality as relatively stagnant, not much progressive. Personality is the product of heredity and environment, the people from same environment will have some common characteristics which will reflect in their personality to a great extent. From this point of view, it can be observed that regular participation in competitive sports will be associated with certain personal and behavioral characteristics which can be categorized as the personality traits of sports men. The question whether personality and competitive sports are related was a topic with heated discussion on many tables. The sports psychologists and counsellors of

different teams participating in higher level tournaments play a very significant role by providing mental support to their athletes and players. Personality is a summation of many attributes combining of physical and psychological characteristics. Since personality is the product of heredity and environment, the people from same environment will have some common characteristics which will reflect in their personality to a great extent. From this point of view, it can be observed that regular participation in competitive sports will be associated with certain personal and behavioral characteristics which can be categorized as the personality traits of sports men.

It is important to know about the role of emotional intelligence, mental toughness and motivation of the players during the training as well as complete situation (Bull 1991)

Procedure and Methodology

In the present study a sample of 50 sports and 50 non-sports men (Total=100 men) of Tinsukia, Assam . The collection of data personality Questionnaire prepared by H.J. Eysenck was administered. For the analysis of data, collected by administering the questionnaire to all the subject's t- test was employed at 0.05 level of significant.

Findings of the study -

To find out the significant of difference between personality traits sports and non-sports men. The analysis of data, collected by administering the questionnaire to the entire subject's t- test was employed at 0.05 level of significant. The statistical analysis of data pertaining to personality traits is given below. Finding of the study show that all there was significant the sports and non- sport men of Tinsukia, Assam . It is clearly indicates that mean of personality trait of sports men is significantly higher than the mean of personality traits of the non-sports men of Tinsukia, Assam. This may be attributed due to the reality that the players prepare mentally for various competition and develop team spirit in them and help them to distribute the pressure of the completion. It is necessary to train players of team sports to enhance mental toughness. These outcomes may realize to develop the various training plans.

Discussion and Conclusions

The results of the study are concluded as follows:

This study was an effort in similar way to find out and compare the variety among the two different types of personality trait. In this study researcher had selected 50 sports men and 50 non-sports men. From the analysis of data researcher found that there were significant difference in participants among sports men and non-sports men, in terms of surroundings especially where anybody work having more influence. This may be attributed due to the reality that the players of prepare mentally for various

competition and develop team composition in them and it also help them to distribute the pressure of the completion.

Researcher feel this above factor might be reason to bring the significant difference between the two groups, the sports men for sports participation and non-sports men for noninvolvement in any sports activities.

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