

Sports And Performance Nutrition

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Week-01

Lecture-01: Introduction to Sports and Performance Nutrition

A warm hello to everybody who is listening. I am Geeta, I am a practicing sports dietitian and I am very excited to be introducing this course sports and performance nutrition and we will discuss what this course is and what this could mean for you to enroll. Sports and performance nutrition comes under the banner of sports science and what could this mean for you. From understanding basics of human nutrition to learning how nutrition can support exercise and how understanding this influence of nutrition over sports can help you pursue a career in sports nutrition or learn from this course to improve your own exercise capacity. It is such an honour to be introducing sports and performance nutrition under the sports science umbrella for IIT Madras for the first time ever and this is a self-paced course that you can take up where we will be discussing scientific application of evidence-based sports science. You will also gain insights into real athlete stories and we will discuss case studies on specific themes and topics and that will be a great learning for you.

I have been very fortunate that I have been juggling nutrition for over 20 years and currently I work with elite national and international level athletes. My journey started with a masters with nutrition and dietetics 20 years ago and I have been lucky that I am a registered dietitian and I have a registration with the Indian Dietetics Association over the years I have picked up a two years postgraduate diploma from the International Olympic Committee. I have been very lucky to discuss sports supplements with the Ministry of Health FSSAI and we have formulated guidelines which is currently put up on their website and I have also represented India at international conferences for round table discussion on the evolution of sports nutrition. What can this sports and performance nutrition program offer for you? Sports nutrition is a very integral subject under the broad umbrella of sports science and we are a part of a multidisciplinary team be it the sports medicine doctor, the physiotherapist, the psychologist or a coach who is handling a specific sport be it a fitness enthusiast or somebody who pursues exercise for passion or if you are an athlete or an athlete parent or you are a strength and conditioning coach who is working with athletes.

This subject can be integrated into several of this other support or the integration with the other subjects and this can be a good learning for anybody who would like to upskill themselves or would like to pursue this subject just to improve their knowledge. Nutrition can have a profound impact on our health. It is but an understatement to say that the food choices on a day-to-day basis have a profound impact on our wellness and well-being. The interplay of several food choices can really impact each one's health and definitely the exercise capacity.

Learning about how these food groups be it your rice roti or your fruit and vegetable and where your protein comes from can be an advantage for you to plan your meals.

Sports nutrition the least to say is definitely a intricate play of several subjects from the simple aspects of human nutrition, nutrition dietetics, clinical nutrition, nutritional biochemistry which underpins every metabolic pathways, understanding exercise physiology or even a basic physiology and of course how food changes when it is being cooked and knowing what is food science. Several of these subjects are involved in understanding what is sports nutrition. We are here to simplify this jargon for you and help you understand sports nutrition in a way that you can not only learn from these evidence-based practices but you could also pursue this as a career. You can pick up a practice and work one on one with athletes from this course from learning the nuances of this sports nutrition. You can also transform your own exercise capacity and optimize performance.

If you are a clinical dietician or you are working in the hospital set up every nutritionist and dietician could up skill herself by pursuing a career in sports nutrition which is the need of the hour. Sports has gained prominence and we are coming to the fore with Olympics around the corner and with a lot of athletes who really need our support from a qualified sports dietician. This course is for each of you to up skill and upgrade. Also, if you are a gym instructor and you have never pursued nutrition or sports nutrition this is a fabulous course for each of you to learn from this and get some real credible certification which will really add value to each of you in your practice. Every sport is different and so are its requirement.

So the nutrition can be tailored to every specific sport and not to mention each athlete in that particular sport. Think about sports nutrition can not only improve your athletic performance but it can also enhance recovery, it can also prevent injury which is really the most important focus point. In athletics the events can get over in a few seconds and the athlete who requires a different training periodization or a training pattern obviously has a different requirement to plan meals before, during and after. Similarly short bursts of energy that leads to really last longer can be very different for racquet sports be tennis, badminton, squash where the matches can last for longer duration and you need to sustain the energy, have the stamina and be able to give it your best. In team sports be it football or cricket again your nutritional requirement can depend on what position you are in.

A midfielder who will run and need huge bursts of energy that can last for about one and a half hours or more obviously needs to plan his hydration, his food intake very differently from a goalkeeper. What about cricket? If you have a pacer and you know who needs to have more or higher bursts of energy his requirement will be very different from a wicket keeper. So over the several topics this is where we are going to be teaching you from what happens from pre-workout, inter-workout to post-workout meals and fluid intake. Simplifying this evidence based nutrition science for you to transform to sports performance we are here to guide you at every step from an Indian context keeping our Indian food choices our culture in mind to be

able to guide you in order to increase your power, stamina, endurance which is very vital for sports and how that can really be a value addition. A guidance towards the right food choices and dietary strategies can really be a game changer for exercise performance and most important of all today a qualified and a credible sports nutritionist or a sports dietician is the core of sports science who really brings a great value to every team equipped with the knowledge of the right assessment tools be it in understanding anthropometry or to read certain blood reports to understand the symptoms of every athlete or and also to be able to look at the food history to give dietary guidelines in the Indian context can make a real difference to your practice.

So where does this course take you forward? As mentioned earlier we are a very important part of the sports science team and if you are any one of these and come under this umbrella or otherwise you want to pursue this program even to just learn from this and improve your own understanding for your well-being be it a doctor, a physiotherapist, a sports psychologist, a gym instructor, a fitness enthusiast, a coach who is teaching a specific sport, an athlete-athlete parent or a strength and conditioning coach. This course can be a value addition to each of you. In my experience I have been fortunate to have juggled several work portfolios from being an academician conducting we were of research in my Olympics to working with individual athlete and I currently also work with elite athletes who represent my country at international events. I have also worked on the industry front and similarly you could also tread this path of either pursuing individual consultancy work with athletes one on one or you could integrate with the sports nutrition industry or even if you are an academician and you would like to upgrade. Also, for those lecturers who teach sports nutrition curriculum to undergrad and postgraduate students this can be a great up gradation where you are learning from the industry experts who bridge theory to practice and can give you a perspective of what actually happens on the field.

So also sense of pride that we work with athletes who represent our country at Olympics, Paralympics, at international events be it the Asian championship or the youth commonwealth. This is an invitation to each of you who is listening please do enrol in this program and improve your own knowledge learn from this course and if you want to pick this up as a career you can definitely help others also learn from this. Knowing the correct nutrition strategies can definitely optimize your training learning about sports nutrition in detail hearing the case study discussion and also hearing real life stories of professional athletes can really improve your competencies and help you practice sports nutrition confidently. I look forward to you enrolling in this program and interact with you in the weeks ahead. Hello I am Vedishree Bhatt I am a sports nutritionist I have done my bachelors in nutrition and dietetics and I have done my masters in sports nutrition.

So now there is so much of nutrition degree the question is how did I actually get into nutrition and food. So early interest stem from my love for different kinds of foods which are out there for me to try which brought me into questioning how can I make these foods healthier how can I enjoy this for as long as possible. So this is a question which I had which made me take up

nutrition as a subject in my bachelors and understand what goes into food because I have grown up listening to VR what we eat so I really wanted to understand that aspect. I used to actually like practice long jump and high jump so my question was we have food we have nutrients we have sports how can we club them how does food actually impact our performance. So this was a bigger question which I had by taking up masters so that was one thing which I wanted to delve into because when we see an athlete performing we just see an athlete on ground practicing or performing but major question is like what actually goes behind that performance.

So when we say actually there is a whole team of people working behind an athlete for that level of performance to come up be it sports science team, coaches, sports medicine, management team bringing in sponsorship so all of these are very important. So similarly one of the aspects of sports science team is nutrition team which plays a very crucial role in fuelling them for that level of performance and that changes from time to time so this was something very fascinating for me so that was one of the reasons why I took it up and I can't wait to work in this thriving environment and contribute to this field and building athletes for our country.