

REF/MSRCASC/CHEM/BIOCHEM/2023-2024/

Date 28.08.24


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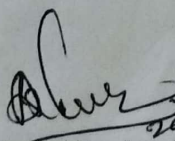
Department of Chemistry and Biochemistry jointly with Department of Physical Education has organized a Guest lecture on “**Sports Nutrition**” by Dr. BHAVANA S. Assistant Professor, Department of Food Technology, Faculty of Allied Health Sciences, Ramaiah University of Applied Sciences Bengaluru, on 03/09/24 at 11:30 am.

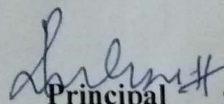
Note: **Attendance is compulsory for all sport students.**

Time: 11:30AM to 12:30PM

Venu: Mother Teresa Auditorium


HOD
Head of the Department
CHEMISTRY & BIO-CHEMISTRY
M.S. Ramaiah College of Arts,
Science & Commerce
Bangalore - 560 054

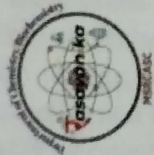

Registrar (Academics)
29/8/2024


Principal
30/8/24
Principal
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RAMAIAH

College of Arts, Science
& Commerce - Autonomous



MS RAMAIAH COLLEGE OF ARTS, SCIENCE & COMMERCE - AUTONOMOUS

Department of Chemistry & Biochemistry

And

Department of Physical Education

Organises

Guest Lecture

on

SPORTS NUTRITION

03 September 2024

Time : 11:30 am

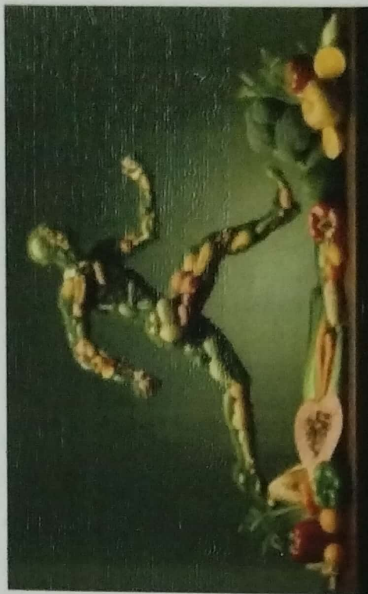


Dr. Bhavana S

Asst. Professor

Dept. Food Technology

MS Ramaiah University of Applied Sciences



VENUE:- MOTHER TERESA AUDITORIUM
MSR CAMPUS



Department of Chemistry and Biochemistry

Report on Guest Lecture on “Sports Nutrition”

Guest Lecture on “Sports Nutrition” was organized by Department of Chemistry and Biochemistry at M S Ramaiah college of Arts Science and Commerce on 03-09-2024. The resource person was Dr. Bhavana S., Assistant professor, Department of Food Technology, Faculty of Allied Health Sciences, Ramaiah University of Applied Sciences, Bangalore.

1. Introduction

Sports nutrition is a critical aspect of athletic performance, focusing on the consumption of foods and supplements to enhance physical performance, promote recovery, and improve overall health. Proper nutrition fuels the body during exercise, aids in muscle recovery, and supports long-term health. This report outlines the key principles of sports nutrition and its impact on athletic performance.

2. Key Principles of Sports Nutrition

2.1 Carbohydrates: The Primary Energy Source

Carbohydrates are the body's primary energy source, especially during high-intensity exercise. They are stored in muscles and the liver as glycogen and are used during endurance activities like running, cycling, or swimming. Athletes should aim to consume a diet rich in complex carbohydrates (whole grains, fruits, vegetables) to ensure sustained energy levels. Pre- and post-workout carbohydrate consumption helps replenish glycogen stores and optimize recovery.

2.2 Proteins: Essential for Muscle Repair and Growth

Protein plays a vital role in muscle repair, growth, and recovery. After intense exercise, the body requires protein to repair muscle tissue that has been broken down. Athletes should aim to consume lean protein sources such as chicken, fish, eggs, and plant-based proteins like beans and tofu. The general recommendation is to consume 1.2 to 2.0 grams of protein per kilogram of body weight, depending on the intensity of the sport.

2.3 Fats: Supporting Endurance and Health

Healthy fats, such as those found in nuts, seeds, avocados, and fatty fish, are an important source of long-lasting energy, particularly for endurance athletes. Fats also support cellular health, hormone production, and the absorption of fat-soluble vitamins. Athletes should focus on consuming unsaturated fats while limiting trans and saturated fats to maintain optimal health.

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2.4 Hydration: Maintaining Fluid Balance

Proper hydration is crucial for maintaining performance and preventing dehydration during exercise. Water helps regulate body temperature, lubricate joints, and transport nutrients. Athletes should drink water before, during, and after exercise. For intense or prolonged activities (lasting over an hour), sports drinks containing electrolytes like sodium and potassium can help replace lost salts and improve endurance.

2.5 Vitamins and Minerals: Supporting Metabolism and Recovery

Vitamins and minerals, including calcium, iron, and vitamin D, are essential for bone health, immune function, and energy production. Athletes should consume a balanced diet rich in fruits, vegetables, and whole grains to meet their vitamin and mineral needs. For example, iron is especially important for endurance athletes to prevent fatigue and support oxygen transport in the blood.

3. Supplements in Sports Nutrition

While a balanced diet is the foundation of sports nutrition, some athletes may use supplements to support performance and recovery. Common supplements include:

- Protein powders (whey, plant-based) to help meet protein needs.
- Creatine for improving strength and power in high-intensity, short-duration activities.
- BCAAs (branched-chain amino acids) to reduce muscle soreness and improve recovery.
- Caffeine for enhancing endurance and alertness during workouts.

However, supplements should be used with caution and ideally under the guidance of a healthcare professional or sports nutritionist.

4. Conclusion

Sports nutrition is a science that plays a fundamental role in optimizing performance and recovery for athletes. A well-balanced diet rich in carbohydrates, proteins, fats, vitamins, and minerals, along with adequate hydration, forms the cornerstone of good nutrition. Supplements can support specific performance goals but should complement, not replace, a healthy diet. By understanding and applying the principles of sports nutrition, athletes can improve their performance, reduce injury risk, and support long-term health.

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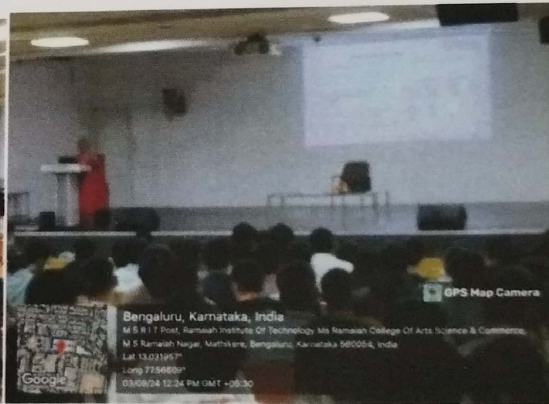
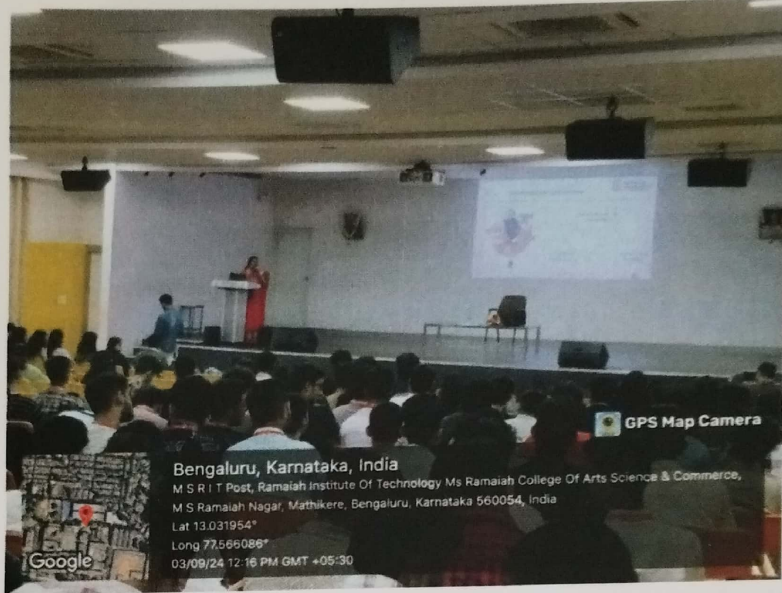
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Coordinator:

Mrs. Ramya Kumari B S

HOD

Principal



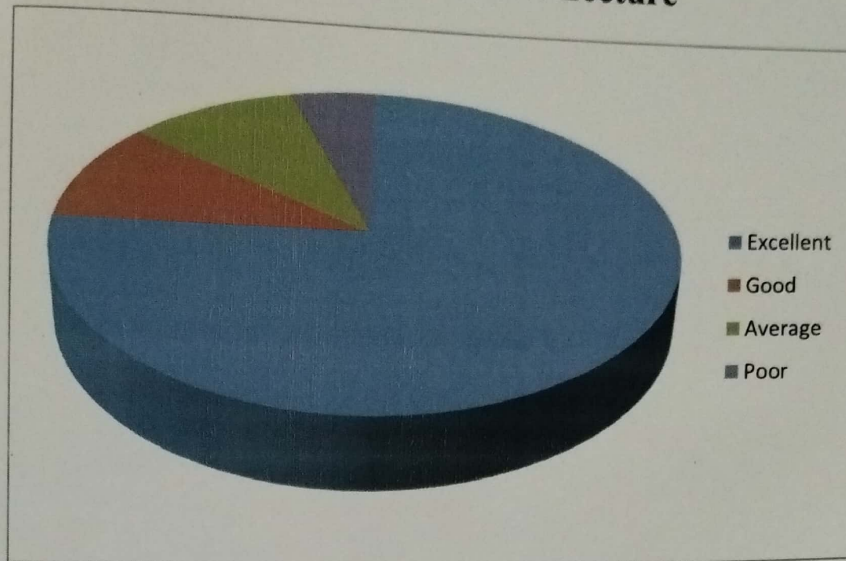
Sulene.H
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Feedback on Guest Lecture



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Principal 11/12/2024

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