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**IAPEN INDIA  
ASSOCIATION**

For  
Parenteral and Enteral Nutrition

**Psychologist**  
**Peroxisomal Acyl-coa Oxidase Deficiency**  
**Carbohydrate And Cancer**  
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**IAPEN Awards June 2021**



## Vice President's (Medical) Address

Greetings from Chennai.  
Wishing you all a Happy Independence day!

Freedom is the most cherished word in this world today. We urgently need freedom from our dependency to the face mask masking our emotions, to the fear of this deadly virus and to the caged life which we are all living for the past one year.

We successfully jumped over the two waves with the haunting suspense about the third wave. We learned how to feed and nurture our covid affected patients. Critically ill covid patients were able to come out of their illness with good quality of life. Thanks to our high protein diet advised to them.

Long covid syndrome is going to be a big problem to us in the near future. Diet can help them to overcome the asthenia and fatigue they incurred with covid infection. It's time for us to work on this and should provide them the guidelines on nutritional support.

IAPEN- INDIA is moving in a right direction towards a better future as an association. National Executive Committee takes care of the indisciplined chapters of our association. That's the need of the hour for any developing society to keep their house in order with honesty and discipline. No one is above the rules of our IAPEN – INDIA and the NEC is the supreme body which will keep guard on this.

I request the members to actively contribute to our association to take it to a glorious future.

Warm wishes.



**Dr. P.C. Vijayakumar**  
DA., DNB., MNAMS.

Hon. Vice President (Medical) IAPEN India  
Chief Anesthesiologist and Critical Care Physician



## Vice President's (Nutrition) Address

Every individual on this planet has an opinion regarding nutrition. The community needs to understand that nutrition is not about opinion but it's a scientific practice. Opinions can be given by anyone. A scientific approach to nutrition practice is what IAPEN India is meant for. In the last few years lot has changed in clinical nutrition in various diseases. Specialized nutrition is the future and we need to be having in depth knowledge in our area of interest. Evidence based practice is what we need to have a better understanding of nutrient role in disease management and its prevention. Documentation is the only way to adopt evidence based practice. Taking human nutrition to better understanding this culture of documentation needs to be imbibed in early ages of practice.



Today we have technology at our disposal to record, to analyze and to interpret the data. All nutrition practitioners should adopt an evidence based approach and proper documentation for an authentic analysis of patient, disease and treatment behaviors. IAPEN India takes pride to recognize and honor the Doctors, nutritionist and Dietitians who are bringing a great change in the way nutrition is understood in this part of the world. IAPEN India is an ideal platform for all nutrition practitioners to be honoured and recognize your credentials and your contribution towards the needy population.

### T. SHIVSHANKAR

Vice President (Nutrition) IAPEN India Association  
for Parenteral and Enteral Nutrition  
Chief Dietitian, Tata Memorial Hospital, Mumbai





## Secretary's Address

I do hope that Covid-19 is declining and continues its downward trend in your region and let's hope that it stays that way and we get back to normal life very soon. Having failed to adequately prepare for the ubiquitous second wave of infections, both officials and health authorities are now routinely warning people of the possibility of a third wave. We need to be mindful that inaccurate and unsubstantiated information about immune boosting powers of certain nutrients or supplements are freely circulating all over social media platforms. These distort the truth and desensitize people from science. We need to ensure that only science-based factual messages are being conveyed. This is the time to deploy and use our expertise in nutrition by ensuring access to relevant information and adding context on the importance of nutrition for immune response which is the need of the hour. By doing this we will have made, irrespective of big or small, a positive contribution to the public health and response systems.



The task at hand, against an invisible and constantly mutating enemy is indeed daunting. I extend my heartfelt thanks to all our healthcare, dietetic IAPEN India colleagues, members who step up every day with selfless service and dedication and perform well beyond the call of duty.

Regarding the operations of IAPEN India, as part of streamlining the membership program, a new drive to process membership has been initiated and circulated. Under this drive all the existing Life Members as well as the New Applicants are required to fill in an online form

<https://docs.google.com/forms/d/e/1FAIpQLSdtc1qUPvc9m6Ygi45GxV5fQD2CfqsK3BTIX5hCHrxdx3QQwA/viewform?vc=0&c=0&w=1&flr=0> with all details requested. I request all to fill-up and submit the same. On receipt of the required details a new Membership Number shall be allotted the Members.

Despite the professional and personal challenges to everyone, which seems to be omnipresent and never-ending, it is motivating, inspiring and encouraging to see our committee members dedicating and contributing their time and knowledge for the weekly meeting to brainstorm and streamline the SOP's and make necessary changes in the Constitution of IAPEN India Association for Parenteral and Enteral Nutrition in a bid to restructure the same to bring in transparency and democratic principles as we move to newer frontiers of disseminating evidence based health care as a community of IAPEN India, an association of repute.

I thank each of you for your participation, contribution and being a torch bearer in these difficult times.

With Warm Regards,

**LEKHA SREEDHARAN**

Hon. Secretary IAPEN India




**IAPEN INDIA  
ASSOCIATION**

 For  
Parenteral and Enteral Nutrition

**National Executive Committee of IAPEN India  
wishes you a happy 75th Independence day**


**Dr. P.C. Vijaykumar**

**Mr. T. Shivshankar**

**Ms. Lekha V S**

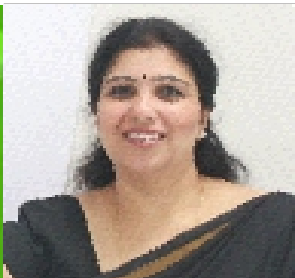
**Ms. Datta Patel**

**Dr. Biju Pottakkat**

**Sanghamitra Chakravarti**

**Ms. Ashu Mehra**

**Ms. Ritika Samaddar**

**Ms. Shreemathy V**

**Ms. Priya Karkera**

**Dr. Mansi Patil**

**Dr. Shilpa Varma**

We all have reason for dual celebrations today as India celebrates its 75th independence & we also celebrate our 1st anniversary of IAPEN Newsletter. On this special day we are happy to release our 2nd quarter newsletter for this year. IAPEN INDIA ASSOCIATION FOR PARENTERAL AND ENTERAL NUTRITION salutes the glory of the nation and pays homage to the martyrs of the freedom struggle. Amidst these trying times of the pandemic, we appreciate and honor the corona warriors, including physicians, nurses, dietitians, paramedical personnel, and all healthcare workers. It is a proud privilege to be a part of an independent India and herald it towards a successful and healthy nation. At IAPEN INDIA, as a multi-disciplinary association, we are committed to supporting "Healthcare for All". Thankyou all for your valuable contributions. Looking forward for same in future too.

**For any queries contact at  
[Info@iapenindia.org](mailto:Info@iapenindia.org)**



## IAPEN Quality Awards 2021

The first IAPEN INDIA Quality Awards for Nutrition and Dietetics practice were announced at ICNC 2021 Ahmedabad, during Annual General Meeting. The awards which were a first of a kind in India brought a great sense of pride and satisfaction among practitioners pan India. To have a level playing field the awards were categorized into ten different categories which included Nutrition Research, Dietetics Practice, Community Nutrition, Entrepreneurship, Digitization and more. The award protocols were framed by invited suggestions from various areas of competence including academicians, researchers, dietitians from government and private sectors. To rule out human error and bias of judgement an electronic scoring system was used for evaluation. All applicants identities were made confidential using a coding system. Further to avoid any important information of a candidate's credibility or achievements to be noted while judging a five minute PowerPoint presentations were asked to submit without disclosing their identity but using their code. The presentation were sent to panel of judges for ratings. The panel of judges consisted of experts in the field of categories they were assessing. A combination of Indian and experts from other countries were invited to judge the contenders. The winners at various levels like district, state & national were confirmed by summing up the judges electronic scores. As these awards will be a bounced biannually a lot of curiosity is being generated for the next edition. The quality awards committee thanks the national executive committee for showing complete faith and giving full autonomy in the process adopted by us. The confidence and trust shown by all participants and the winners has strengthened the aims and objectives of IAPEN INDIA. The work has just begun.

### TEAM IAPEN INDIA QUALITY AWARDS



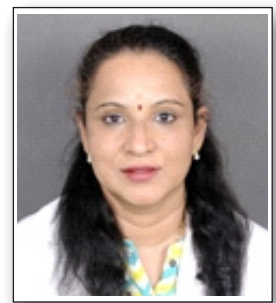
**Shivshankar Timmanpyati**  
Chairman



**Priya Karkera**  
Secretary



**Datta Patel**  
Joint Secretary



**Sreemathy Venkatraman**  
Member



**Shilpa Verma**  
Member



**Mansi Patil**  
Member





# IAPEN INDIA ASSOCIATION

For

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## IAPEN Quality Awards 2021

**Excellence in therapeutic food service management category**



**SUSAN ITTY**

**Aster Hospital Kochi,  
Kerala**

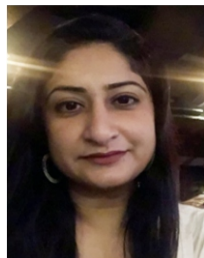
**National Level Winner**



**MEENAKSHI BAJAJ**

**Tamil Nadu Govt General  
Hospital, Chennai**

**State Level Winner**



**MS BHAKTI SAMANT**

**Kokilaben Dhirubai Ambani  
Hospital, Mumbai**

**District Level Winner**





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## IAPEN Quality Awards 2021

### Excellence in Public Health Nutrition Category



**Dr. V. BHAVANI**

**ESIC Medical College  
and Hospital, Chennai**

**National Level Winner**



**SUNITA SAHOO**

**Apollo Hospital  
Bhubhaneshwar, Orissa**

**State Level Winner**



**SHEETAL JOSHI**

**Divakar's Speciality Hospital  
Bengaluru, Karnataka**

**District Level Winner**



**Dr. ANKITA SHARMA**

**Vigyan Kendra Agricultural  
University, Jodhpur, Rajasthan**

**District Level Winner**



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## IAPEN Quality Awards 2021

### Excellence in Entrepreneurship



**JYOTI DESHMUKH**

**Navimumbai, Maharashtra**

**National Level Winner**



**Dr. NIDHI AGARWAL**

**PUNE**

**State Level Winner**



**SHRADDHA JOSHI**

**Shashiganga, Dehradun  
Uttarakhand**

**District Level Winner**



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## IAPEN Quality Awards 2021

### Excellence in Dietetics Informatics and Digitization



**MANJU GEORGE**

**Lakeshore Hospital and Research  
Centre, Cochin, Kerala**

**National Level Winner**



**RITIKA SAMADDAR**

**MAX HEALTHCARE INSTITUTE  
SAKET, NEW DELHI**

**State Level Winner**



**VARSHA GOREY**

**Appollo Hospital,  
Navimumbai, Maharashtra**

**District Level Winner**





# IAPEN INDIA ASSOCIATION

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## IAPEN Quality Awards 2021

### Excellence in Clinical Nutrition Innovation



**MICHELLE BRITTO**

**College of Home Science  
Nirmala Niketan**

**National Level Winner**



**MERINA ELIZABETH ALEX**

**Chennai**

**State Level Winner**



**BIJOYA MUKHERJEE**

**RB Diet Clinic  
Kolkatta, West Bengal**

**District Level Winner**



# IAPEN INDIA ASSOCIATION

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## IAPEN Quality Awards 2021

### Excellence in Outstanding Accomplishment



**APARNA NAGENDRA**

**Bengaluru**

**National Level Winner**



**Dr. LUXITA SHARMA**

**Amity University  
Haryana**

**State Level Winner**



**UPASANA SHARMA**

**Max Health Care  
Gurgaon**

**District Level Winner**



# IAPEN INDIA ASSOCIATION

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## IAPEN Quality Awards 2021

### Excellence in Nutrition Research



**ARCHANA PRABHAT**

**Alva's College  
Mangalore, Karnataka**

**National Level Winner**



**LEKHA SHREEDHARAN**

**Apollo Hospitals  
Chennai, Tamilnadu**

**State Level Winner**



**Dr. SHIPRA SAKLANI**

**PIGMER  
Chandigarh**

**District Level Winner**





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## IAPEN Quality Awards 2021

### Excellence in Out Patient Management

	<b>CUDDLES FOUNDATION</b>
	<b>Mumbai Maharashtra</b>
	<b>National Level Winner</b>

	<b>SAFALA MAHADIK</b>
	<b>KEM Hospital, Mumbai, Maharashtra</b>
	<b>State Level Winner</b>

	<b>NIKITA JITKAR PATIL</b>		<b>KANAK GUPTA</b>
	<b>Noble Hospital Pune, Maharashtra</b>		<b>Matruchaya Hospital, Kanpur, Uttar Pradesh</b>
	<b>District Level Winner</b>		<b>District Level Winner</b>



# IAPEN INDIA ASSOCIATION

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## IAPEN Quality Awards 2021

**Dr. MONICA GUPTA**

**Sri Krishna Hospital  
Karamsad, Gujarat**

**District Level Winner**



**JIGNA PATEL**

**Sri Krishna Hospital  
Karamsad, Gujarat**

**District Level Winner**

## Excellence in Nutrition Practice



**HARITA SHYAM**

**Apollo Hospital  
Hyderabad**

**National Level Winner**



**SASIKALA C**

**Avitis Institute of Medical  
Sciences, Palakkad, Kerala**

**State Level Winner**



# IAPEN INDIA ASSOCIATION

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## IAPEN Quality Awards 2021

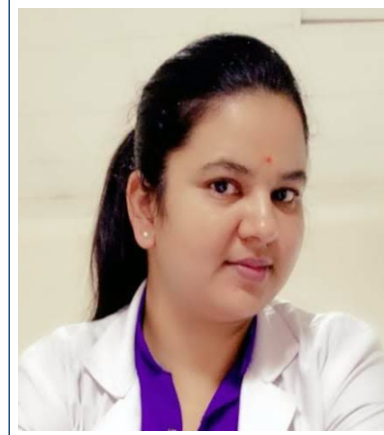
### Excellence in Nutrition Practice

## State Level Winner's



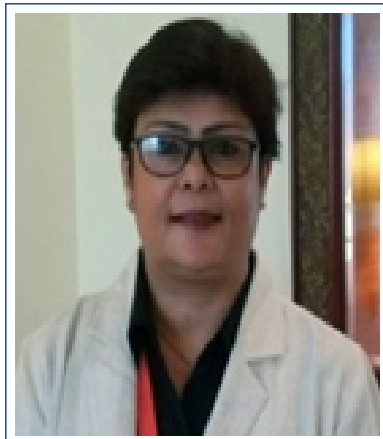
**SHRUTI BHARADWAJ**

Narayan Hospital  
Ahmedabad, Gujarat



**GUNJAN SINGH**

Shubham Hospital, Varanasi  
Uttar Pradesh



**BABITA HAZARIKA**

Apollo Hospital - Kolkatta  
West Bengal



**ANSHU CHATURVEDI**

CMC Vellore Hospital  
Tamil Nadu





# IAPEN INDIA ASSOCIATION

For

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## IAPEN Quality Awards 2021

### Excellence in Nutrition Practice

## State Level Winner's



**GARGEES RAI**

National Cancer Institute  
Nagpur, Maharashtra



**MAHENDRI N V**

CMC Vellore Hospital  
Tamil Nadu



**A. RAJASHREE**

Apollo Hospital-Chennai  
Tamil Nadu



**MGM HOSPITAL-VASHI**

NAVI MUMBAI  
MAHARASHTRA



# IAPEN INDIA ASSOCIATION

For

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## IAPEN Quality Awards 2021

### Excellence in Nutrition Practice

## District Level Winner's



**Dr. SARIKA SATAV**

Noble Hospital  
Pune, Maharashtra



**S. RAMYA**

Apollo Hospital- Chennai  
Tamil Nadu



**V. SUGANYA & N. JEYANTHI**

Apollo Hospital-Madurai  
Tamil Nadu

**NISHITA KUNDU**

Medanta Medicity Hospital  
Gurgaon, Haryana



# IAPEN INDIA ASSOCIATION

For

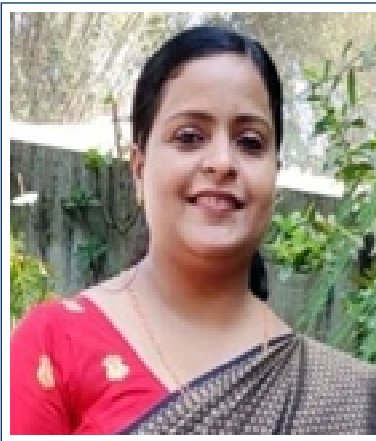
Parenteral and Enteral Nutrition



## IAPEN Quality Awards 2021

### Excellence in Nutrition Practice

## District Level Winner's



**PRINCY THOMAS**

**Rajgira Hospital  
Ernakulum, Kerala**



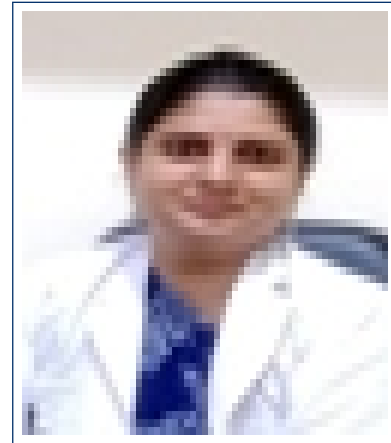
**LAHAR MINAKSHI**

**Unique Hospital  
Surat, Gujarat**



**ZAMRUD PATEL**

**Global Hospital  
Mumbai**



**Dr. DIVYA CHAUDHARY**

**RGCIRC Hospital  
Delhi**





# IAPEN INDIA ASSOCIATION

For

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## IAPEN Quality Awards 2021

**Excellence in Medical Nutrition Therapy**



**Dr. EILEEN CANDAY**

**Sir H N Reliance Hospital  
Mumbai, Maharashtra**

**National Level Winner**



**M VIJAYALAKSHMI**

**PSG Hospital Coimbatore  
Tamil Nadu**

**District Level Winner**



**Dr. SHEETAL CHHAYA**

**Dheeraj Hospital,  
Wagodia, Gujarat**

**District Level Winner**



# IAPEN INDIA ASSOCIATION

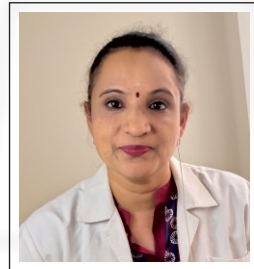
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## Dysphagia Awareness Month

Worldwide June is observed as Dysphagia Awareness Month. To create awareness on the importance of “Interdisciplinary Management of Dysphagia” a webinar series was organized from 28-30th June by ISHA (Indian Speech and hearing Association) and SLP QUEST. IAPEN INDIA also participated from the clinical Nutrition point of view. Ms. Sreemathy Venkatraman – Executive Committee member, Dysphagia core group delivered a talk on “Role of Clinical Nutrition” in managing Dysphagia highlighting the importance of textured diets and the need of interdisciplinary co-ordination in managing the same to prevent malnutrition and improving the Quality of life in patients. She also participated in the Panel discussion with surgeons from oncology, Gastroenterology along with academicians and Speech language pathologists in various case scenarios on the ways Nutrient dense foods and texture can be incorporated in safe swallow. The 3 day webinar was attended by Speech language pathologists, speech therapists, dietitian and students from SLP.



### Webinar series on Interdisciplinary Management of Dysphagia

#### 28 JUNE

**Why IDC for Dysphagia?**  
**Dysphagia Beyond Functional Limitations**  
**Role of Family Members & Care Takers**  
**Role of Surgical Deglutology**

#### 29 JUNE

**Role of Prosthodontics**  
**Role of Plastic Surgery**  
**Role of Clinical Nutrition**  
**Role of Gastro Enterology**

#### 30 JUNE

**Role of Physical Therapy**  
**Role of Speech and Swallow**  
**Panel Discussion: Challenges and Risk**



#### Sreemathy Venkatraman

Clinical Dietitian & Wellness nutritionist  
National Office Bearer- Central committee IAPEN-INDIA  
Certified Diabetes Educator- UK International  
Founder- Mithaahara - Eat to live  
[www.mithaahara.com](http://www.mithaahara.com), 9880842068





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## Yoga Event



21st June is celebrated as International day of Yoga (IDY) since June 2015, initiated by Shri Narendra Modi. Being a Yoga professional, we celebrate this event every year. In the year 2019 I got an opportunity to launch a book, based on Yoga. Ministry of Ayush, under the name of YCB (Yoga certification board). They had come up with a new syllabus, which I fortunately received before everybody else could and grabbed the opportunity of writing a book, based on that syllabus. It was my luck that Nirali publication got ready to publish my book in such a short period of time. No other day than the day of Yoga was appropriate to launch this book. Dr. Hardikar (Senior sir) at once got ready to come for the event, which added pleasure to my event. We had a session of Omkaar & Pranayam at the end of the session. Got an opportunity to meet Dr. I. V. Basavaraddi, who has planned the sequence of the new syllabus

**Julie Dattani**





# IAPEN INDIA ASSOCIATION

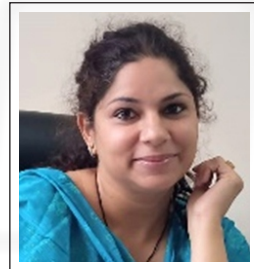
For

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## Recovery Nutrition for Athletes

Recovery nutrition is important if one complete two or more training sessions in one day or two sessions in close succession. If athletes don't recover properly from their strenuous training regimen, they can't perform at the elite level, and that's where proper nutrition and hydration come into play.



Three R's to be taken into account are:

- Rehydrate
- Replenish
- Rebuild

### REHYDRATE

Loosing sodium and chloride can reduce power, strength, agility, skill and concentration. Try include Isotonic drink in between your session and Hypertonic drinks after your session.

### REPLENISH

Focus on 3 T's

- Total- Match your caloric intake with your training regimen.
- Type- Carbohydrates for energy and glycogen stores, protein for repair and fats to minimize inflammation.
- Timing- Time your meals for your sessions and competition.

### REBUILD

Athletes need to increase calories other than protein if they want to grow more muscles. Focus more on healthy fats from non-animal sources instead of junk foods. Rather than going for superfoods, try taking small things consistently. For example, Try Drinking Beet Root Juice (Works Like a Magic Drink). In case of wound try including vitamin C and zinc in your diet.

**DT. Khushboo Agarwal**

Therapeutic Dietitian/Sports  
Nutritionist/Diabetes Educator  
(432-6532-9856-4053)



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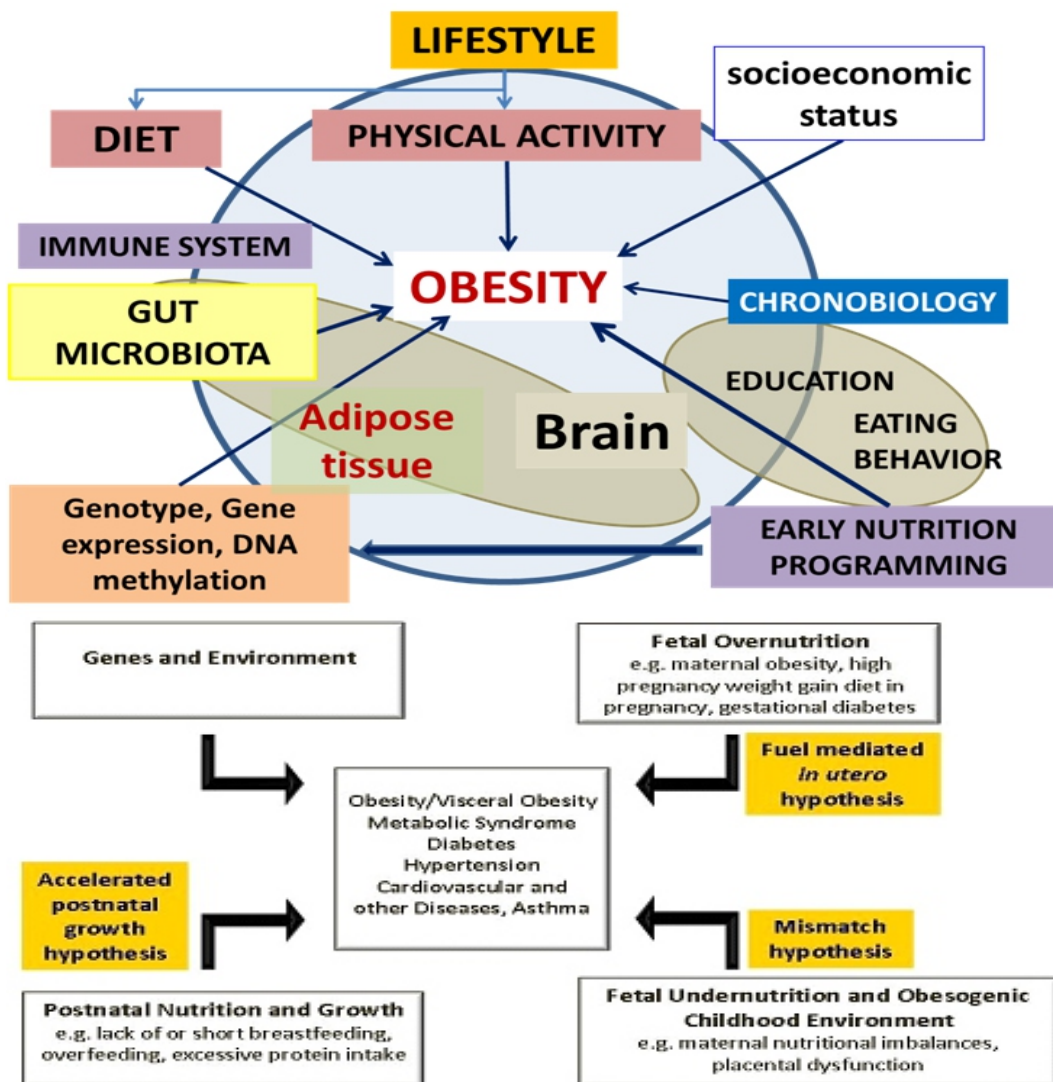
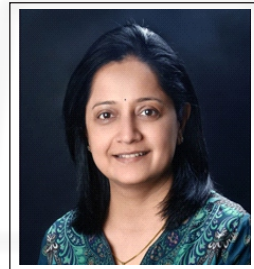
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## Obesity- Few Causes and Theories

Obesity is commonly due to its positive energy balance; the intake of calorie is more than the expenditure of energy. Obesity is a state in which there is a generalized accumulation of excess adipose tissue in the body leading to more than 20% of the desirable weight. Overweight is a condition where the body weight is 10 – 20 % greater than the mean standard weight for age, height and sex. Obesity being a chronic condition invites disability, disease and premature death.



**CAUSES:** can range from Genetic Factors – Genetic inheritance probably influences 50-70 % a person's chance of becoming fat more than any other factor. Ob gene produces leptin, that is, the satiety hormone and induces lipolysis. Even, Beta 3 adrenergic gene is required for proper lipolysis in the adipose tissue. If it does not function properly, satiety will not be reached leading to binge eating and thus risk of obesity. Age and Sex – It generally occurs in adulthood but infantile obesity is also seen, nowadays.

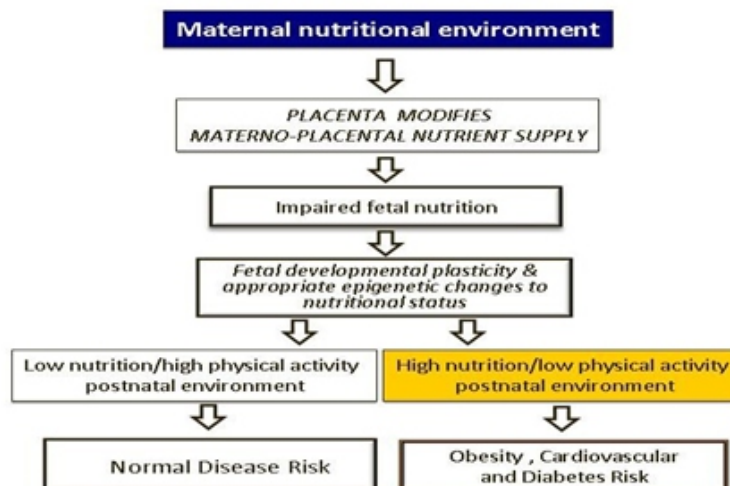
**Shilpa Varma**

Committee Member, National Executive Committee, IAPEN India Association for Parenteral and Enteral Nutrition



Studies conducted at Nutrition Foundation of India have shown more females than males are found to be overweight among all the age groups. Hormonal predisposition put women at higher risk of obesity when compared to men. Android Obesity is a case in obese individual in which the body's extra fat gets distributed over the abdominal region of the body because of which the person's body's shape seems to be apple shaped. It is usually prevalent among males whereas, Gynoid Obesity refers to the body fat that forms 26 around the hips, breasts and thighs. Gynoid fat in females is used to provide nourishment for offspring, and is often referred to as 'reproductive fat'.

### Mismatch between pre- and postnatal Environment



**Eating Habits** – Certain types of eating habits may lead to obesity. ❖ Housewives who are fond of cooking, and do not want leftover food to be thrown out may consume forcibly, along with nibbling between meals, is a potential cause for obesity. ❖ Some may eat faster taking less time for chewing therefore, they tend to consume more food. ❖ Obese respond to external cues like sight, taste, smell and temperature to eat rather than internal hunger signals. They eat when it is mealtime or when they are surrounded by tasty food instead when they are hungry. ❖ People who eat

outside or junk food (high in fat and carbohydrate) more frequently are prone to obesity. Large portions of food served outside the home promote high calorie consumption. ❖ Non – inclusion of fruits and vegetables and non – vegetarian diet favours weight gain. ❖ People who eat processed, concentrated and high fat food may become obese. ❖ Personnel who work in different shifts, whose body clock is distributed, may tend to overeat. ❖ Consumption of sugar added beverages may contribute to weight gain.

**Physical Activity** – Obesity is found in persons who lead sedentary lifestyle and pay less importance to physical activity. Obesity can occur at any age when physical activity decreases without corresponding decrease in food consumption. Obesity can also be seen among school children who spend too much time on studies, who do not have physical exercise, who do not participate in school games and who use vehicles for commuting to schools.

**Stress** – Food is one of the major stimulants of endorphin, 'feel good' neurotransmitter. Self-gratification, self-punishment, depression, anxiety and stress may lead to excess calorie intake. Some people may eat more when unhappy as a compensation mechanism. Chronic sleep deprivation may increase appetite in some.





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**Endocrine Factor** – Obesity is found in hypothyroidism, hypogonadism and Cushing's syndrome. Obesity is common at puberty, pregnancy and menopause, suggesting endocrine may be a factor in obesity.

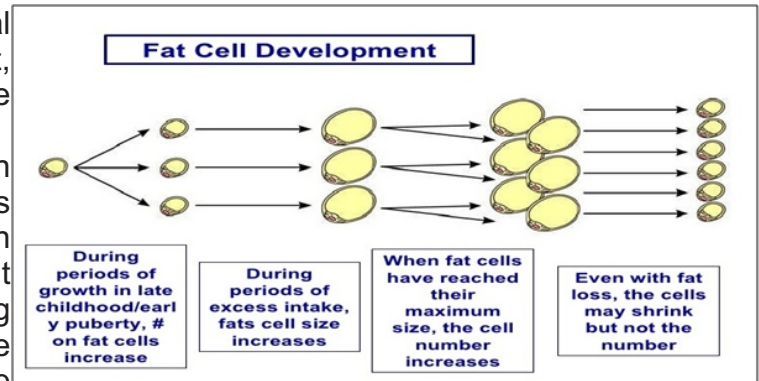
**Injury and Trauma** – Obesity may follow due to injury, trauma, drugs and surgical conditions. It may follow due to damage to hypothalamus after head injury because it is not able to regulate appetite or satiety.

THEORIES:

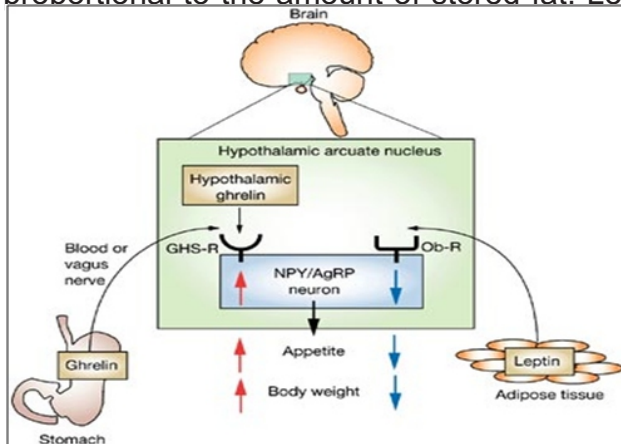
**Fat Cell Theory** – Number of fat cells is determined in the early life to provide space to store fat. Once they have been formed, fat cells have a tendency to remain full of fat. Total number of fat cells was set in early life,

Set Point Theory – Each person has an ideal biological weight or set point. Once body weight reaches this point, a whole point of signals is produced that influences the person's food intake to maintain this weight.

Role Of Insulin and Leptin in The Endocrine Regulation Of Appetite And Body Weight – Obesity gene is expressed in the fat cells and cell codes for the protein leptin. It acts as a hormone in the hypothalamus. It promotes negative energy balance by suppressing appetite and increasing the energy expenditure. People with genetic defect of leptin show signs of poor appetite



control, constant hunger and eat more and may gain weight. In obesity there is sufficient leptin production but there is insensitivity or resistance of the adipose tissue to leptin. The concentration of leptin in blood is usually proportional to the amount of stored fat. Leptin plays an important role in the long-term regulation of energy



balance. During starvation and weight loss, leptin production from adipose tissue decreases. When the fat stores in adipose tissue are adequate, leptin levels are high. This signals to restrict the feeding behaviour and limit fat deposition. Leptin stimulates lipolysis and inhibits lipogenesis. Any genetic defect in leptin or its receptor will lead to obesity. Insulin and leptin are hormones that act as medium to long term regulators of body weight through their actions to decrease food intake and increase energy expenditure (metabolic rate), ensuring that energy intake and energy expenditure is closely matched. People who do not produce leptin due to genetic deficiency or who have defects in the leptin receptor have dramatically increased appetites and overeat to the point of becoming massively obese. The effects of leptin deficiency are

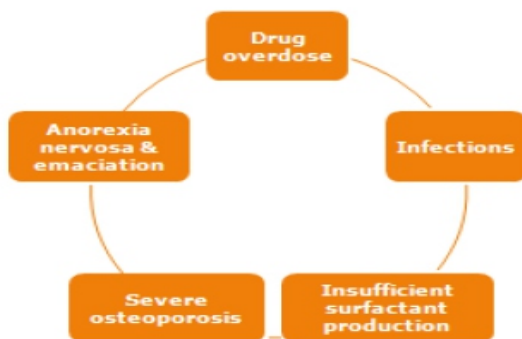
ameliorated by the administration of recombinant leptin. Insulin, in addition to its effects in the central nervous system to inhibit food intake acts in the periphery to ensure the efficient storage of incoming nutrients. Insulin also has an indirect role in body weight regulation through the stimulation of leptin. Both insulin and leptin are transported into the central nervous system, where they may interact with the number of hypothalamic neuro peptides known to affect food intake and body weight. Insulin and leptin are released and circulate in the blood stream at levels that are proportionate to the body fat content.



## Impact of Nutrition in Covid 19 Pandemic -I

These Covid times are very harsh as it is affecting pulmonary system and thus oxygen uptake is adversely affected. An optimal pulmonary system enables metabolism of various nutrients through oxygen uptake. But there are various factors which alter respiration process as mentioned below -

### Factors responsible for respiratory alterations



Malnutrition not only create an impact on immune function of lungs but it also affects the total functioning of lungs and thus during any infection which involves respiratory system, lungs collapse.

The relationship between lungs' immune system and malnutrition is as below -

### Lung's immune defence mechanism

Lungs are an important part of the body's immune defence system, because inspired air is laden with particles and microorganisms

Mucus keeps the airways moist and traps the particles and microorganisms from inspired air



Malnutrition adversely affects lung's structure which include

Reduced elasticity, and function

Reduced respiratory muscle mass



Reduced strength, and endurance of lungs

Reduced lung immune defence mechanisms

Reduced control of breathing

### Impact of nutrient deficiency in Lungs

**Protein, Iron and Folic acid deficiency**

- Result in low hemoglobin levels
- Impair the oxygen-carrying capacity of the blood

**Low levels of calcium, magnesium, phosphorus, and potassium**

- Respiratory muscle function at the cellular level is affected adversely

**Hypoalbuminemia (low serum albumin)**

- Leads to pulmonary edema by decreasing colloidal osmotic pressure and thus allowing body fluids to move into the interstitial space.
- Decreased levels of surfactant (compound synthesized from proteins and phospholipids) contribute to the collapse of alveoli thereby increasing the work of breathing.



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## Mediterranean Diet

Mediterranean diet (MED DIET), as the name suggests, is the diet consumed by the countries in the Mediterranean region (Spain, Crete, Greece) in the 1960's. There has been no single accepted definition of MED DIET yet, though it includes high amounts of fruits and vegetables, unrefined cereals and olive oil. It also caters to inclusion of red wine in the diet, fish and dairy though the amounts of non fish meat intake is low. This diet has proven to be one of the most effective in preventing cardiovascular diseases and has been reported to be the best dietary choice. Thus arises the need for Indianizing the MED DIET.

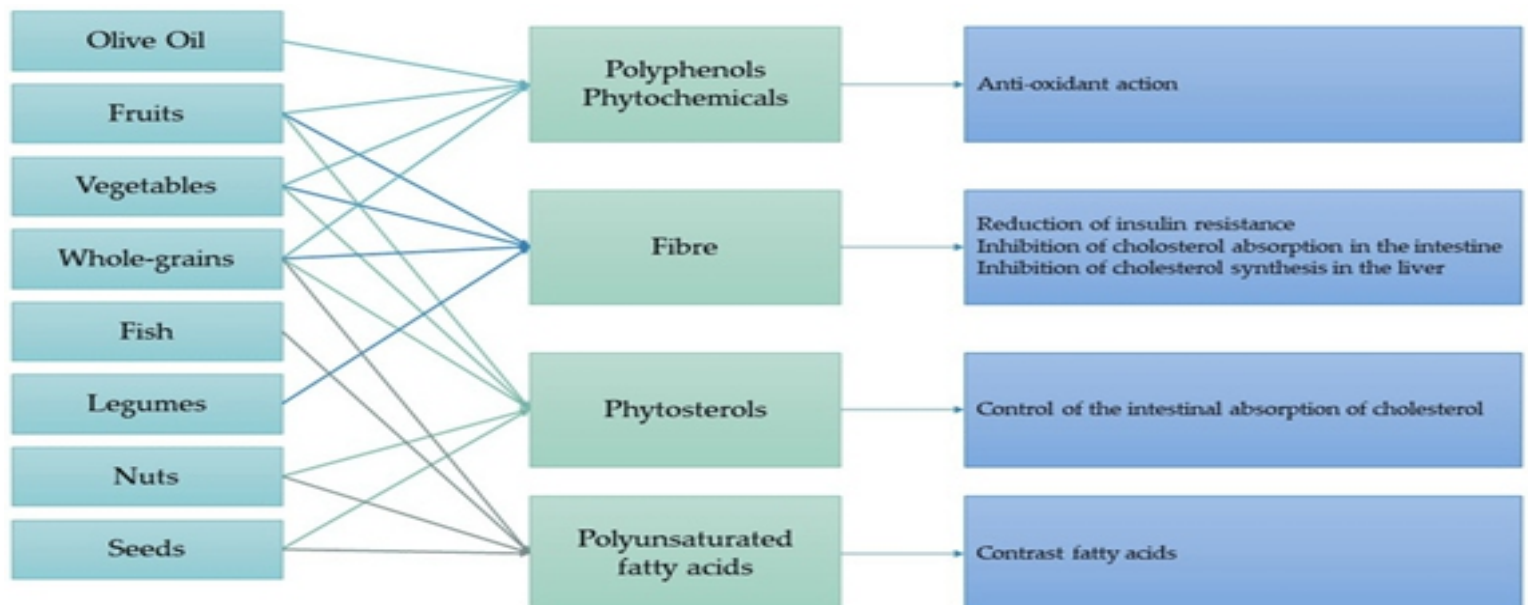
### Can the MED DIET really be Indianised?

Unlike the Mediterranean region, India has a huge geographical variability, along with which comes the variety in food availability, choices and cooking styles. Nevertheless, due to increasing accessibility of food, all foods are now available globally. A traditional Indian diet varies from region to region and generalizing it is not feasible. What is feasible though, is replacing raw ingredients of Indian diet with MED DIET and using MED DIET oils.

The upside of the Indian diet is that it comprises of a wide range of fruits and vegetables, cereals and millets, pulses and legumes, milk and milk products, nuts and oil seeds, meats as well as oils and fats, like the MED DIET. This makes it possible to blend the Med Diet with the Indian dietary customs to a great extent.

### Benefits of Indian version of Mediterranean diet

A Med Diet is all about eating a fresh, wholesome and balanced diet along with regular physical activity too. It thus fosters healthy eating habits, mindfulness and promotes mental and physical well being. The components of Med Diet remain the same in the Indian context as well, thus the benefits do not change. Similar to the origin, the Med Diet in the Indian context is loaded with antioxidants, vitamins and minerals, unsaturated fats, fibre.







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## Mediterranean Diet

### Myth 1

A Med Diet is an expensive diet

**Fact :** Cost is a comparative term! If we compare the cost of packaged, ordered foods to the home cooked wholesome meals the cost is in favor of the latter. It is also important to note that the expenses incurred towards health issues due to unhealthy diets outweigh the advantages of saving time and ease of cooking.

### Myth 2

Alcohol is good for health

**Fact :** Not all alcohols are good for health! Only red wine in recommended quantities is considered heart friendly due to the presence of phytochemicals and antioxidants. Moreover, if a person does not consume any form of alcohol, inclusion of red wine will not offer additional benefits. Consumption of red wine in excess or beyond the recommendations will have deleterious effects.



Busting the Myths of a Mediterranean

### Myth 3

Med Diet is all about Pastas and Breads

**Fact:** Typically, a Med Diet includes small servings of home cooked pastas and bread as a side dish ( $\frac{1}{2}$  to 1 cup serving) and the rest of the plate is full of fresh fruits and vegetables and fish. Mediterraneans do not load up their plates with carbohydrate rich foods.

### Myth 4

Med Diet talks only about Diet

**Fact:** Med Diet is a holistic approach to lifestyle and eating. It includes physical activity and talks about apportion sizes too. Mediterraneans make it a point to have leisurely meals with family, without the television, do not eat in a hurry and make meals a social activity.

**Dr. Mansi Patil**

Committee Member, National Executive Committee, IAPEN India Association for Parenteral and Enteral Nutrition



## AN INTERVENTION OF INTRADIALYTIC PARENTERAL NUTRITION ON MALNOURISHED DIALYSIS PATIENT- A CASE APPROACH

Protein energy wasting is the hall mark of Dialysis therapy, causing a challenge to the nutritional status. Providing optimum nutrition to these patients is very much essential to offset malnutrition associated inflammation.



A 51 year old female patient is a long standing on CAPD for 17 yrs. She has undergone Renal Transplant (2005) with graft rejection and a Systemic Hypertension, Alcohol ablation of parathyroid (2014), Parathyroidectomy for parathyroid hyperplasia (2019), Old PTB –Treated. She was admitted on 24/11/2020 with complaints of fever for the past two days, complaints of passing multiple episodes of loose stools and complaints of vomiting associated with severe abdominal pain over the past 5 days. She has been admitted for further management. In view of cloudy PD effluent, PD fluid was sent for culture which grew *Staphylococcus warneri*. HSCRP and IL-6 were elevated. In view of chronic diarrhea and malnutrition inflammatory syndrome, it was decided after expert opinion to rest the peritoneal membrane and do temporary hemodialysis from 02.12.2020. 1 unit PCV was transfused due to iron deficiency anemia. (Hb - 7.9 g/ dL, TSAT - 12.85%) and two doses of IV Ferrinject 500mg was given.

Patient was hypo albuminemic. Patient was suggested to take Oral Nutrition supplement twice daily and a High Protein Diet. As her nutritional requirement was not met orally she was advised to put on IDPN to meet her nutritional requirement. She was not willing to be feed entally. She was given IDPN (SMOF Kabiven 1Liter) on Hemodialysis days weekly twice for one months 15/12/ 2020- 15/01/2021. Through the IDPN patient received Energy- 1100 Kcal, 50 g protein and oral food intake on an average met 1200 Kcal and 30 g protein. Her nutritional status gradually improved from Severe Malnutrition (SGA - 29) to Moderate malnutrition (SGA- 18). Her diarrhea issues were settled, food intake gradually improved. The progress of the patient's body composition is as below mentioned. As patient's food intake resumed back, the IDPN was discontinued. Her Serum Albumin improved from 1.9 g/ dL to 3.4 g/ dL and she reverted back to the CAPD latter.

**Merina E Alex**



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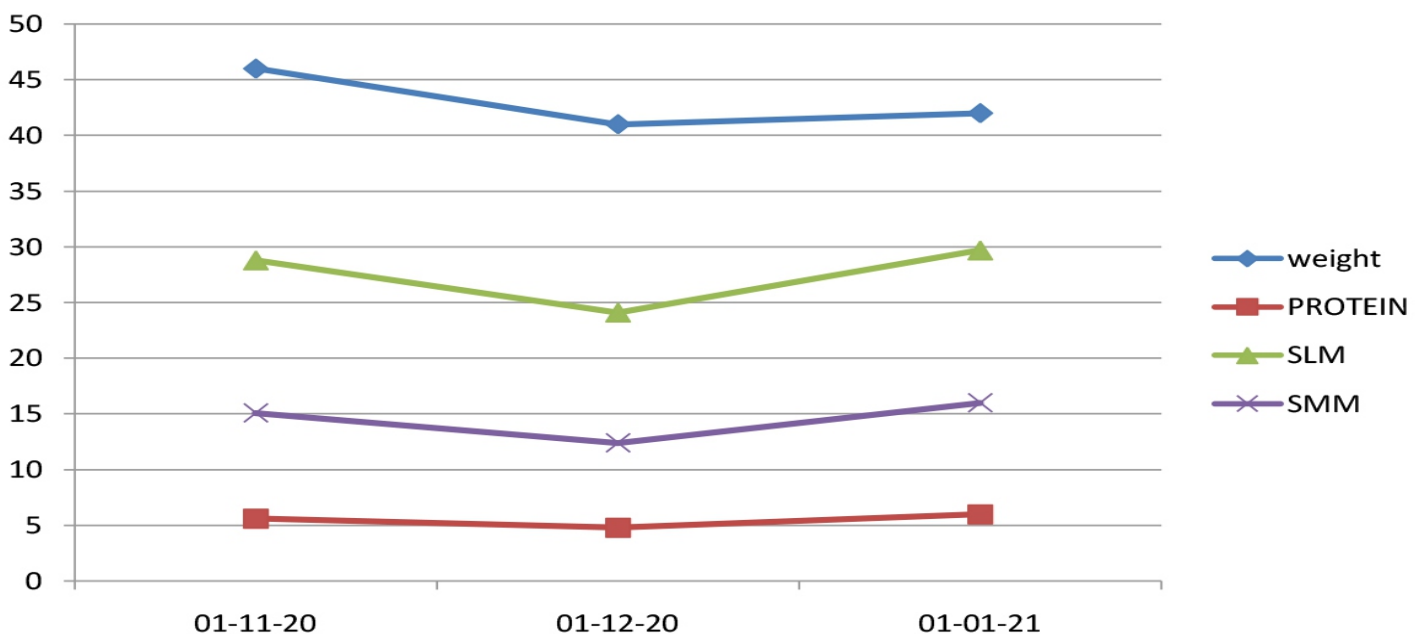
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## BODY COMPOSITION REPORT

PARAMETER	UNITS	27/11/2020	29/12/2020	30/1/2021	NORMAL VALUE
HEIGHT	Cms	156	156	156	
WEIGHT	Kg	46	41	42	43.4- 58.8
BMI( Body Mass Index)	Kg/ M2	18.9	16.8	17.3	18.5- 23
PROTEIN	Kg	5.6	4.8	6	7- 8.6
FAT	Kg	14.8	14.9	9.9	10.2- 16.4
SLM(Soft Lean Mass)	Kg	28.8	24.1	29.7	33.4- 40.8
FFM( Fat Free Mass)	Kg	31.2	26.1	32.1	35.4- 43.3
SMM(Skeletal Muscle Mass)	Kg	15.1	12.4	16	19.3- 23.5
PBF(Percent Body Fat)	%	32.2	36.4	23.5	18- 28
BCM( Body Cell Mass)	Kg	18.8	15.8	19.8	23.1- 28.3
AC( Arm Circumference)	Cm	24.7	23.6	24.1	
AMC	Cm	19.4	18.3	19.2	

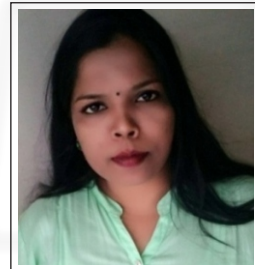






## PEROXIMAL ACYL-COA OXIDASE DEFICIENCY A RARE CASE REPORT

Peroximal acyl-Co A oxidase deficiency is a disorder that causes deterioration of nervous system functions (neuro degeneration) beginning in infancy. Newborns with peroximal acyl-Co A oxidase deficiency have weak muscle tone (hypotonia) and seizures. They may have unusual facial features, including widely spaced eyes (hypertelorism), a low nasal bridge, and low-set ears. Peroximal acyl-Co A oxidase deficiency is a rare disorder. Its prevalence is unknown. Only a few dozen cases have been described in the medical literature. There is no specific nutritional guidelines available.



A 4.9 year old female is a case of proximal Acyl Co-A oxidase deficiency with a history of early onset seizures and global developmental delay in early years of life. She was on normal regular solid diet till 3 years of age. At 3 years of life the patient developed frequent loose stools, vomiting, loss of appetite, decreased food intake and loss of body weight. She was initiated on enteral nutrition and given Kitchen feeds through Rhyle's tubes. Symptoms were persisting. She was again hospitalized with increased drooling of saliva and looked emaciated with 13.5% of weight loss within a month. On further investigations She was found to have increased levels of Long chain fatty acid particularly L6 in the serum and was advised to consult the dietitian for further nutritional management. Patient was nutritionally assessed and she was moderately malnourished. A goal in cessation of further weight loss and provide sufficient energy and protein was set. She was then advised on small frequent enteral feeds with high carbohydrates, to avoid starving/ fasting, to restrict fats; particularly long chain fatty acids (L-6). She was given an individualized diet plan meeting the Recommended dietary allowances. Enteral Nutrition Scientific formula rich in MCT was introduced meeting 75% of total nutrient requirements. 25% of the remaining nutrient requirements was planned with DENOVO feeds with low or no L-6 fatty acids foods through RT feeds. A 7 day follow up was done, the patient tolerated the feeds well with No GI symptoms. Review after 28 days was done, No further weight loss was reported and oral diets were started. A balanced diet with no/low L-6 fatty acid was planned and advised to review after one month.

This case study is a rare deficiency where there was no nutritional guidelines available. With simple assessment tools, GI assessment and understanding the deficiency and nutrition we can improve the symptoms, nutritional

**N.Vijayashree**

 Chief Dietitian ,  
GM Health Care, Chennai



## Carbohydrate and Cancer : Myths and Facts

Previously, it was said cancer has no answer. But this notion has been opted out as the medical research is very updated and well understood and implemented. During chemo and radiotherapy, weight loss is very common but patients are very afraid of taking the carbohydrate. Again there is a myth that carbohydrate is unhealthy. Calculation of carbohydrates and calorie distribution of this macronutrient is very individualistic, performed by qualified dietitians. Cancer cells require a lot of glucose for energy more than normal cells. This is because cancer cells metabolize, or break down, sugars using a different and less efficient process than that of normal, healthy cells. Cells typically use oxygen to burn glucose for energy. Because cancer cells grow in excess and become densely packed, however, they often survive in a low-oxygen environment and have adapted to breaking down sugars in the absence of oxygen—a process called anaerobic metabolism. Unfortunately, anaerobic metabolism is much less efficient than breaking down sugars aerobically, or with oxygen. As a result, cancer cells may need as much as 40 times more glucose than normal cells that function with sufficient levels of oxygen to generate the same amount of energy. Now coming to the importance of carbohydrates only for cancer patients, carbohydrates give the energy to survive. But the simplified carbohydrate that is sugar feeds the cancer cells. So, free sugar in any form leads the worsen situation of any kind of tumors. Some evidence says that, ketogenic diet is better for cancer survivors. Ketogenic diets selectively starve tumors by providing the fat and protein that otherwise could not be used by glucose-dependent tumor cells. In KDs, the 4:1 ratio of high fat to low carbohydrates mimics the metabolic effects of starvation. But prolonged keto diet have some detrimental effects in metabolism. An alternative to a low-carb diet for controlling blood sugar is the whole-foods diet, which is rich in whole grains, legumes, fruits, vegetables, and fiber and also happens to have a low glycemic index. Carbohydrate-based glycoconjugate vaccines are already acknowledged. Carbohydrates are widely found on the surface of bacteria, fungi and viruses. Naturally, targeting glycans of pathogens as vaccine components has attracted considerable attention in the past decades. A major breakthrough in vaccine development has been in glycoconjugate vaccines in which the carbohydrates are conjugated to carrier proteins to evoke strong protective antibody responses against the pathogens associated with the carbohydrate. Most carbohydrate-based vaccines focus on eliciting humoral immunity to produce protective antibodies, which are addressed elsewhere. The glycoconjugates that induce T-cell responses to help B cell producing protective antibodies. So for immunity boosting and maintaining, carbohydrate rather complex carbohydrates are very important to incorporate in daily diet. Total calorie is dependent upon the patient's age, disease condition and carbohydrates recommendation and variations are dependent upon the treatment, prognosis, economic and cultural factors. But weight loss or gain is not only associated with carbohydrates. There are lots of myth but carbohydrate is one of the major nutrient which will help patients to survive. This case study is a rare deficiency where there was no nutritional guidelines available. With simple assessment tools, GI assessment and understanding the deficiency and nutrition we can improve the symptoms, nutritional status and quality of life of the patients.



**Koyel Pal Chowdhury**

Research Dietician and Secretary  
IAPEN Kolkata Chapter  
GM Health Care, Chennai



## IMMUNO NUTRITION IN SURGICAL PATIENTS

Surgery creates high metabolic demand, weakens the immune system and lead to infection. This thereby increases the mortality and morbidity rate. Immunonutrition is defined as “The potential to modulate the activity of the immune system by intervention with specific nutrients”. Immunonutrition can inhibit the inflammation, enhance the immune function, increase T cell function and decreases the body inflammatory response and improves wound healing in surgical patients. Arginine, Glutamine, Omega 3 fatty acids, beta carotene zinc, are referred as immune enhancing nutrients. Immunonutrition can be administered through enteral and parenteral routes. Preoperative immunonutrition reduce the rate of infection, post-operative complication and length of hospital stay. The most essential immno nutrients that benefits surgical patients are:



**Glutamine:** Glutamine improves the intestinal integrity and cellular immune function. Enteral glutamine reduces sepsis in premature neonates and critically ill patients, glutamine reduces the incidence of pneumonia, bacteracemia. Parenteral glutamine reduces the incidence of infection among bone marrow transplant patients.

**Arginine:** Arginine supplementation enhances the T cells function and helps in wound healing among post-operative patients. Enteral Arginine benefits the patients undergoing surgery for head and neck cancer. Excessive doses of arginine should be avoided in patients with inflammatory status

**Antioxidants:** Nutrients such as vitamin A, C, E, zinc, selenium, iron, copper are considered as antioxidants. Antioxidant provides protective role against infection caused by bacteria, virus, parasites. Improves cell mediated immunity, reduces oxidative stress.

**Omega 3 fatty acids:** PUFA (the natural source is fish oil) provides anti-inflammatory effect, decrease the infection rate and hospital stays in surgical patients. Thus incorporating immunonutrition in pre and post operative course enhance the immune system and benefits the surgical patients.

This case study is a rare deficiency where there was no nutritional guidelines available. With simple assessment tools, GI assessment and understanding the deficiency and nutrition we can improve the symptoms, nutritional status and quality of life of the patients.

**Dr V. BHAVANI**

Dietician, ESIC Medical College and Hospital, Chennai,  
Under Ministry of Labour and Employment, Govt. of India  
Secretary, Indian Dietetic Association, Chennai Chapter  
RD Representative, Chennai Chapter



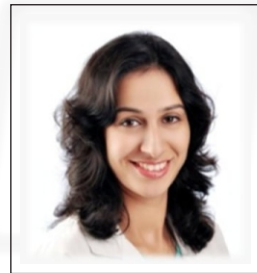


## Importance of Bone Health via Nutrients

It is very important to understand which are the key nutrients involved in keeping the bones healthy and how the altered quantity or quality of bones leads to osteoporosis or osteomalacia which can be very well prevented by having the recommended allowances of key nutrients which help maintain strong bones and they are as follows

### Key nutrients involved:

Calcium 1000 to 1200mg, Magnesium 250-500mg, Phosphorus 1000mg, Potassium 80 mcg, D3 200-600iu, Fe 10-30mg, Selenium 35 ug, Zinc 5-15mg and silica



### Antioxidants involved

Vitamin A Betacarotene from yellow orange fruits and vegetables, Vitamin C from berries and citrus fruits, Vitamin E from nuts and oilseeds, AND SUPPLEMENTATION OF B6 100MG PER DAY proves beneficial specially in the case of degenerative auto immune bone disease like rheumatoid arthritis.

Here is information that may help you separate the facts from the myths about diet and bone degenerative conditions like Rheumatoid arthritis, lupus, spondylosis, gout and osteoarthritis.



### Maintaining alkalinity in body helps lower Arthritis?

A diet high in fruits, vegetables, and vitamin C (an acid which promotes alkalinity when consumed) may be linked to a lower risk of arthritis. In fact, we know that rheumatoid arthritis is less severe in some Mediterranean countries such as Greece and Italy. In those countries, the main diet consists of large amounts of fruits, vegetables, olive oil, and fatty fish high in omega-3s. Fruits, vegetables, grains, and legumes are high in phytonutrients. These are chemicals in plants that have disease-fighting properties and immune boosting antioxidants such as vitamin C, vitamin E, selenium, and the carotenoids. A plant-based diet is also high in bioflavonoids. These are plant compounds that reportedly have anti-viral, anti-inflammatory, and anti-tumor activities.

### Vitamins and Minerals - Important for healthy bones ?

Folic acid, or folate, is a B vitamin found in food and is available in supplement form. Folic acid helps the body manufacture red cells. It is important if you take methotrexate, a commonly prescribed medication for rheumatoid arthritis, because folic acid may help you to avoid some of the drug's side effects and even otherwise heals the nerves.



## Importance of Bone Health via Nutrients

Supplementation of Selenium and Zinc helps to fight free radicals that cause damage to healthy tissue as some studies indicate that people with rheumatoid arthritis have reduced selenium levels in their blood.

Supplementing your diet with bone-boosting calcium and vitamin D is important, especially if you take corticosteroids (like prednisone) that can cause bone loss. The risk of bone loss is higher in people with arthritis. Sunlight is important as it's the only way our body converts vitamin D into its active form for its better uptake by the bones. Reduced intake of saturated fats like butter, ghee, cream and other refined, canned, processed, fried and spicy foods proves beneficial to a large extent. Ingesting fewer omega-6 fatty acids and more omega-3 fatty acids, may suppress inflammation and decrease the risk of illness.

Many studies show that lowering the ratio of omega-6 (found in soya bean oil and safflower oil fatty acids) to omega-3 fatty acids contained in the diet can reduce the risk of illness. Omega-3 fatty acids, For omega-3 fatty acids, select cold water fish such as salmon, tuna, and trout. Some plant foods are also sources of omega-3 fatty acids. They include walnuts, tofu, and soybean products, flax seed and canola oil.

The marine omega-3 fatty acids contain EPA (eicosapentaenoic acid) and DHA (docosahexaenoic acid). These are substances that may decrease inflammation but it's always safer to opt for the vegetarian sources like nuts and seeds mentioned above as the fish oils may have high amounts of mercury and vitamin A which are toxic. Emphasis on drinking lots of water to prevent the body from going into an acidic mode with exercises is also of utmost benefit. Excess kilos put extra strain on knees, hips, and other weight-bearing joints, not to mention your heart. Being overweight or obese actually worsens the joints -- making them stiffer and more painful -- and can exacerbate arthritis flare-ups. There may be certain foods which may trigger symptoms so one has to identify those and delete them out and have an individualized diet which proves beneficial as it lowers the clinical symptoms significantly. By and far exercise well, breathe well, sleep well and be in a happy mind frame with a positive outlook towards life. Keeping in mind the required lifestyle modifications and coupling it up with the right type of exercises can take one into a sound and healthy mind/body frame in totality.

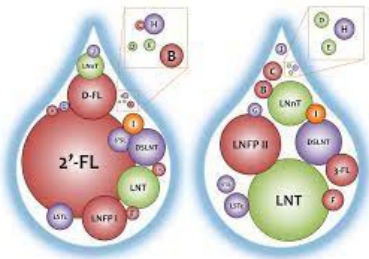


**Mehar Panjwani**

Clinical Dietitian



## Human Milk Oligosaccharides



Human Milk Oligosaccharides (HMOs) are important constituent of breastmilk and are third most abundant solid component after lactose and lipids. HMOs form a category of unconjugated, multifunctional, non-digestible, structurally diverse glycans

Structurally, five monosaccharides form the building blocks of



### HMOs:

D- Glucose, D-Galactose, N-acetylglucosamine, L-fucose, Sialic Acid

### HMOs are classified into 3 types:

- ▶ Nonfucosylated neutral HMOs
- ▶ Fucosylated neutral HMOs
- ▶ Sialylated Acidic HMOs

HMOs contribute to infant's defenses and healthy development in different ways:

**Shaping Intestinal Microbiota** -They act as prebiotics and serve as metabolic substrates for the growth of beneficial microorganism in the infant intestine, stimulate colonization of beneficial microbes

**Infection Prevention** – They exert direct defense mechanisms against pathogens and protect infants from infections

**Immuno-Modulatory Effects** -HMOs can bind to cell-surface receptors expressed on epithelial and immune system cells and thereby modulate neonatal immunity in infant gut

**Anti-Adhesive effects** - HMOs serve as soluble ligand analogs block pathogen adhesion and protect the infant against infection

**BrainHealth** - HMOs provides the infant with sialic acid as a potentially essential nutrient for brain development  
HMOs represent the next frontier in neonatal nutrition as they constitute a major component of the immune protection conferred by breast milk upon infants.

**Ranu Singh**

Hon. Chapter Vice President  
IAPEN Lucknow Chapter





## A Travelling Athletes Diet

Elite athlete's travel long distance often for training & competition. They face challenges like pressure of competition, provision for altitude or heat adaptation training, jet lag –due to travel across multiple time zones .It brings physiological alteration in the body known as Circadian Desynchronization such as fatigue, disturbed sleep, insomnia, hypersomnia, decreased alertness, headache, mood disturbances, decreased motivation, appetite loss, gastrointestinal stress - bloating ,diarrhoea & constipation. It may affect the overall athletic performance.



The Argonne diet was proposed by Argonne National Laboratory at Argonne, Illinois. The Argonne Diet is feasting and fasting which starts 4 days before departure. On Feast days, the breakfast and lunch should be rich in proteins and the dinner should be high in carbohydrate. The high-protein

meals raise plasma amino acid precursors to brain catecholamine's, high-carbohydrate meals prepare the body for sleep. On Fast days, include fruits for breakfast and lunch with a bowl of vegetable soup for supper. There is no caloric limit for feast days but fast days should be limited to 800 kcal .On the departure day, feasting occurs and caffeine is permitted in the morning for a westbound flight or between 6:00 and 11:00 p.m. for an eastbound flight. No alcohol may be consumed on the plane during transit. There is insufficient evidence to show that meal timing alleviates jet lag symptoms. Hence guidance to be given by the sports dietitian prior travelling.

**Rachel Deepthi**

**M.Sc., RD, CDE**  
(Registered Dietitian and Sports Nutritionist)



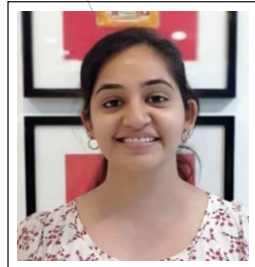
## A1 and A2 Milk

Milk proteins consist of 80% casein and 20% whey proteins. Casein is the chief component of Bovine milk proteins, including  $\alpha$ -s1,  $\alpha$ -s2,  $\beta$ , and  $\kappa$ -Casein. Each casein type has its own unique amino acid configuration, genetic and functional properties<sup>1</sup>. Among the four types of caseins, the unique protein fractions of  $\beta$ -casein have drawn a special interest and attention to scientists due to a potential relationship found between the  $\beta$ -casein and the health of cow's milk consumers.

There are majorly 2 types of  $\beta$ -casein, A1 and A2. A2  $\beta$ -casein possesses proline at the 67th position of its 229 amino acid chain while A1 beta-casein has histidine at the respective position. Breeds like Jerseys, Asian and African cows produce A2 milk while Holsteins and Ayrshire predominantly produce A1 milk.

When A1 protein is digested in the small intestine, it produces a peptide called Beta-casomorphin-7 (BCM-7) which then passes into the blood. Various studies have linked BCM-7 to stomach discomfort and symptoms like those experienced by people with lactose intolerance<sup>2</sup>. The structure of A2 protein is more comparable to human breast milk and does not produce BCM-7 hence makes it easy to digest. Several pieces of research have suggested that A2 is richer in nutrition as compared to A1.

The robust composition of several essential nutrients, minerals, vitamins, and proteins in the A2 milk can benefit health on colossal levels. Including A2 milk in the dietary regimen can harness the strength and nutrition that this natural health drink, and steer clear of diseases and ailments.



1. Fan, X., Gao, S., Fu, L., Qiu, L., and Miao, Y. (2020). Polymorphism and molecular characteristics of the CSN1S2 gene in river and swamp buffalo. Arch. Anim. Breed. 63, 345–354. doi: 10.5194/aab-63-345-2020 [CrossRef Full Text](#) | [Google Scholar](#)

2. Behera, R., Sahu, A., Mandal, A., Rai, S., Karunakaran, M., & Dutta, T. (2018). A1 versus A2 Milk- Impact on Human Health. International Journal of Livestock Research, 8(4), 1-7. <http://dx.doi.org/10.5455/ijlr.20170810113426>

**Somya Shrivastava**

Hon. Chapter Treasurer, IAPEN India Delhi Chapter



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## TURMERIC.....The golden spice for life

Besides flavoring food, to purify the blood and skin conditions remedy is probably the most common use of Turmeric in Ayurveda.

- The main organs that turmeric treats are the skin, heart, lungs and liver.
- Turmeric is used for epilepsy and bleeding disorders, skin diseases, to purify the body-mind, and to help the lungs expel Kapha.
- Activity of turmeric include alternative analgesic, antibacterial, anti-inflammatory, anti tumor, anti allergic, antioxidant, antiseptic, appetizer, antispasmodic, astringent, digestive diuretic, stimulant and vulnerary (a wound healing drug).
- Therapeutic uses of turmeric

Anemia, cancer, diabetes, digestion, food poisoning, gallstones, indigestion, poor circulation, infection and wounds.

Turmeric helps to regulate the female reproductive system and purifies the uterus and breast milk.



Turmeric reduces fever, diarrhea, urinary disorders, insanity, poisoning, cough and lactation problems in general. Turmeric is used to treat external ulcers that respond to nothing else. Turmeric decreases Kapha and so is used to remove mucus in the throat, watery discharge like leucorrhea and any pus in the eyes, ears or in wounds etc.

Turmeric helps in the treatment of cancer.

In Ayurveda cooking turmeric is everywhere, this multifaceted wonder spice helps

- Detoxify the liver
- Balance cholesterol level
- fights allergies
- stimulate digestion
- boost immunity
- enhance the complexion.
- Turmeric treats the whole gastro-intestinal system.

It is also an antioxidant. Ayurveda recognizes turmeric as a heating spice, contributing bitter, pungent and astringent tastes. For its better absorption in the body used it along with white or black pepper.

**Dt. Shivani Thakur**

**Hon Chapter Secretary, IAPEN India Mohali**





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## Life Long Learning

The IAPEN Lifelong Learning Initiative provides stimulating, congenial, and varied opportunities designed specifically for lifelong learners in advanced clinical nutrition.



## NUTRITION & DIABETES INDIA

A CORE GROUP OF IAPEN

Nutrition & Diabetes, India is a core group of IAPEN (The Indian Association for Parenteral and Enteral Nutrition) devoted to the study of metabolic problems associated with diabetes and their nutritional implications and management.

## Six Months Certificate Course in Diabetes Care and Education

**Course fee -**

**INR 12650/- + 18% GST**  
(for non IAPEN members)  
**INR 11650/- + 18% GST**  
(for IAPEN members)

### Course Details

# Modules :4  
# Distance Mode  
/online  
#Application based  
learning system

### Course includes

# Project work  
# Manuscript preparation  
# Journal Submission  
# Online Examination

### Course Modules

# Introduction to Diabetes  
# Diabetes Education  
# Diabetes Management  
# Diabetes Life cycle

### Eligibility -

Graduate in Nutrition or Nursing (Bsc & above), Pharmacist (B Pharmor above), Bachelors of physiotherapy, occupational therapy, Doctors, Nutrition Graudates.





**Life  
Long  
Learning**  
Initiative

*three months*

# Certificate Course in Lifestyle Management and Hypertension

(Online/Distance Learning)

<http://www.iapenhypertension.in>

#### Course Details

Course Modules: 7  
International Experts  
Distance Mode/Online  
Application Based  
Learning System

#### Course Includes

Project Work  
Manuscript Preparation  
Journal Submission  
**Online** Examination  
Many More

**Eligibility:** Graduation in Nutrition or Nursing,  
Pharmacist (B-pharm or above), Bachelor of  
Physiotherapy and Bachelor of Occupational  
Therapy, Doctors.

**Course Fee**  
**INR 8000/-**  
**+ 18% GST**

#### Course Modules

1. Introduction to Hypertension
2. Dietary Management in Hypertension
3. Physical Activity in Hypertension
4. Habits and Addictions and De-addiction Techniques
5. Stress Management in Hypertension
6. Non pharmacological Management of Hypertension in Special Populations
7. Latest Advances in Lifestyle and Hypertension Management



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In ICU & Critical Conditions Achieving MNT Goal for  
Volume Restriction / Fluid restriction is a Big challenge



**Rely on**

# Celnutra™ 2.0

High Protein...High Calorie



5 Scoops



70 ml water = Volume 110 ml

2.20  
Kcal / ml

245  
Kcal

18 gm  
Protein



Dosage	Serving Size	Dilution	Volume	Energy (Kcal)	Protein (gm)	Carb (gm)	Fat (gm)	Fiber (gm)	Sodium (mg)	Potassium (mg)	Phosphorous (mg)
Per Scoop	10 gm	14 ml	22 ml	49	3.6	4.6	1.75	0.92	13.2	2.9	14.2
Serving of (5 scoops)	50 gm	70 ml	110 ml	245	18	23	8.75	4.61	66.93	104	71.2
Per 100 gm Powder				490	36	46.25	17.5	9.3	133	209	142
Per 100 ml Feed			100 ml	222	16.3	20.9	7.95	4.19	60.8	95.4	65.45



Standard Polymeric EN Formula Formulated on basis of ESPEN Guidelines

# Celnutra™ 1.0

Suitable for Hospital & Home care setup

**For Faster Recovery**



5 Scoops



170 ml water = Volume 210 ml

1.00  
Kcal / ml

210  
Kcal

10.5 gm  
Protein



Celnutra 1.0 Powder	Water	Total feed Volume	Energy	Protein (gm)	Carb (gm)	Fat (gm)	Fiber (gm)	Sodium (mg)	Potassium (mg)
50 gm / 5 scoops	170 ml	210 ml	210 Kcal	10.5	29.4	4.67	4.2	62.5	104.5
59.5 gm / 6 scoops	200 ml	250 ml	250 kcal	12.5	35	5.56	5	75	125.4
119 gm / 12 scoops	400 ml	500 ml	500 kcal	25	70	11.11	10	150	250.8
238 gms / 24 scoops	800 ml	1000 ml	1000 kcal	50	140	22.22	20	300	501.6

**Nucgnex Lifesciences Pvt. Ltd.** 371, Kothrud, Pune - 411 029, Maharashtra, India.,

• Email id: [info@nucgnex.com](mailto:info@nucgnex.com) • Website: [www.nucgnex.com](http://www.nucgnex.com) • **SMS helpline – 08329154611**





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For

Parenteral and Enteral Nutrition



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