

# DIABETES MONITOR

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**Dr. Mohan's®**

DIABETES SPECIALITIES CENTRE

WHO Collaborating Centre  
for Non-communicable Diseases  
Prevention & Control

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## DIABETES FEST 2011 - AWARDS CEREMONY MEGA INTER-SCHOOL, INTER-COLLEGE CULTURALS ON 'PREVENTION OF DIABETES'

The twin epidemic of diabetes and obesity is increasing at alarming proportions in India. Currently India has 62 million people with diabetes and unless proper steps are taken, this number can exceed 100 million people in the next couple of decades. The seeds for diabetes particularly obesity and physical inactivity are sown in childhood. Hence if the diabetes epidemic has to be tackled effectively, there needs to be a concerted effort aimed at preventing obesity in school and college children. When programmes are organized for diabetes, usually only people with diabetes tend to attend them and the messages do not reach out to school and college children. With this in mind, the mega event called 'Diabetes Fest 2011', an initiative of Dr. Mohan's Diabetes Specialities Centre, four-month long affair with a range of diabetes themed art and cultural competitions was held for school and college students.

The **DIABETES FEST 2011** - Awards ceremony was held on 25th November 2011 at Chennai Convention Centre (CTC Complex), Nandambakkam, Chennai. The mega event was inaugurated by **Sir Michael Hirst**, President Elect, International Diabetes Federation, Belgium. We also had **Mr. Wasim Akram**, former Pakistan Cricket captain as the 'International Guest of Honour' at the function. This function was a star studded event with celebrities from various walks of life like cinema, music, sports and the scientific community who encouraged the children and youth who participated in various events and also gave away the prizes to the winners. There were 4500 school and college students and their parents gathered as

the results of a series of competitions were announced and the winners awarded.

**A c t o r s** Ms. Suhasini Manirathinam, Ms. Revathy, Mr. Prashanth, Mr. Jeeva Mr. Prasanna, Mr. Mahendran, Mr. Ramesh Kanna, Mr. Banu Chander, Mr. Anand Raj and Mr. Arun Vijay, Director Mr. Pandiraj, Music Director Mr. Srikanth Deva, Cricketer Mr. LakshmiPathy Balaji and Mimicry artist Mr. Robo Sankar were the prominent personalities who gave away the trophies to the winning schools and colleges.

Students from 111 schools and 30 colleges participated in the events. The Winner of **Dr. Rema Mohan trophy** for Diabetes Prevention at school level was **Padma Seshadri Bala Bhavan (PSBB)** High school and the Runner-up was **SBOA School**. The college level Dr. Rema Mohan Winner's trophy for Diabetes Prevention

was taken over by **MOP Vaishnav College** for women and the Runner-up trophy by **Sri Venkateswara College of Engineering**. Mr. Wasim Akram, Sir Michael Hirst, Mrs. Suhasini and Mrs. Revathy presented the Dr. Rema Mohan trophies to the winning schools and the colleges. Mr. Wasim Akram gave gifts to the type 1 children.

In addition to this there were many attractions in the Diabetes fest 2011. These include Diabetes Carnival with Dance events, Music (Vocal) show, Painting Gallery with display of participants' paintings, Photo Gallery with display of participants' photos, educational stalls to learn about diabetes and its prevention, multi cuisine food court, sugar free sweets, blood glucose testing, special footwear for diabetic individuals, diabetes products, blue wheel for diabetes, lucky draw and many more exciting gifts.

### *Picture Gallery of Diabetes Fest 2011 - Award Ceremony*



Dignitaries on the dais: From left **Dr. V. Mohan**, Chairman, DMDSC, **Dr. R. M. Anjana**, Joint Managing Director, DMDSC, **Mr. T. Prashanth**, Film Artist, **Ms. Suhasini**, Film Actress, **Sir Michael Hirst**, President Elect, International Diabetes Federation, **Mr. Wasim Akram**, Former Pakistan Cricket Captain, **Ms. Revathy**, Film Actress, **Dr. Ranjit Unnikrishnan**, Vice Chairman, DMDSC and **Mrs. Rekha Thankappan**, Chief Executive Officer, DMDSC.



### *Dr. Rema Mohan Trophy Winners*



Winner (School level)-PSBB High School



Runner (School level)-SBOA Matriculation School



Winner (College level)-MOP Vaishnav College for Women



Runner (College level) - Sri Venkateswara College of Engineering



Mr. Wasim Akram presenting the gifts to Type 1 Children



Rangoli display at the entrance of Chennai Convention Centre



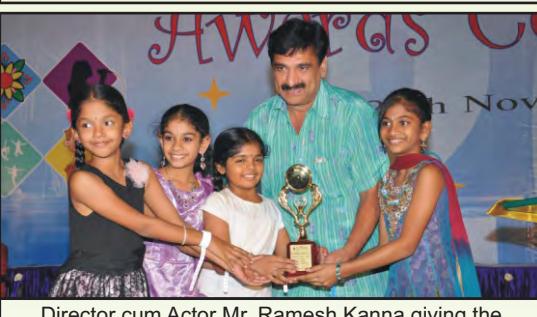
### *Prize distribution by the Celebrities to the Winners*



Actor Prasanna and Cricket Player Lakshmipathy Balaji presenting the award to kids



Actress Revathy and actor Jeeva giving away the prize



Director cum Actor Mr. Ramesh Kanna giving the prize to the school children



Mimicry artist Mr. Robo Shankar giving away the prize to the children



Presentation of awards by Music Director Mr. Srikanth Deva, Actors Mr. Anandraj & Mr. Banuchander



Actors Arun Vijay & Mr. Mahendran presenting the awards



Director Mr. Pandiraj giving prize to the students



Dance Performance by Type 1 Children



*Attractions of Diabfest*



Fun & Games



Fun & Games



Blue Wheel for Diabetes



Photo Gallery



Painting Gallery



Educational Stalls



## 19<sup>th</sup> DMDSC GOLD MEDAL ORATION AWARD CONFERRED ON SIR MICHAEL HIRST

The Dr. Mohan's Diabetes Specialities Centre (DMDSC) at Gopalapuram, Chennai instituted the DMDSC Gold Medal Oration Award in 1994 in order to honour distinguished International Medical Scientists every year. This year the **19<sup>th</sup> DMDSC Gold Medal Oration Award** was conferred on **Sir Michael Hirst**, President Elect, International Diabetes Federation (IDF), Brussels, Belgium. This award was bestowed on him for his outstanding contributions in the field of diabetes. Sir Michael Hirst delivered the Oration on the topic 'Perspectives of a Diabetes Champion over quarter of a Century'. **Mr. Mike Nithavrianakis**, Deputy High Commissioner, British Deputy High Commission, Chennai presented the award to Sir Michael Hirst.



**Mr. Mike Nithavrianakis**, Deputy High Commissioner, British Deputy High Commission, Chennai, presenting the **19<sup>th</sup> Gold Medal Oration Award** to **Sir Michael Hirst**, President Elect, International Diabetes Federation (IDF), Brussels, Belgium. Also in photo (left to right): **Dr. R. M. Anjana**, Joint Managing Director, DMDSC, **Dr. V. Mohan**, Chairman, DMDSC, **Dr. Abhay Saraf**, Head, Division of Health Systems, Support Unit & Program Director, CCEBDM, PHFI, Delhi & **Dr. Ranjit Unnikrishnan**, Vice Chairman, DMDSC



## INDO – US INTERNATIONAL SYMPOSIUM ON PANCREAS

**Madras Diabetes Research Foundation (MDRF)** in collaboration with **MedIndia Hospitals**, Chennai, jointly organised the **Indo – US International Symposium on Pancreas** which focused on the exocrine and endocrine aspects on 7th and 8th January, 2012 in Chennai. This meeting was attended by internationally and nationally acclaimed eminent faculty, scientists and physicians.

During this symposium **Dr. C. S. Pitchumoni**, Chief of Gastroenterology, Hepatology and Clinical Nutrition, Saint Peter's University Hospital, USA, was honoured and felicitated with the “Life Time Contribution Award” and “Medindia Oration Award” on his completion of 50 years of writing the first article on the pancreas in the year 1962.



**Dr. C. S. Pitchumoni**, Chief of Gastroenterology, Hepatology and Clinical Nutrition, Saint Peter's University Hospital, USA, being presented with “Life Time Contribution Award” and “Medindia Oration Award” by **Ms. Jennifer McIntyre**, U.S.Consul General, Chennai. Also in photo (left to right): **Dr. Shashank Joshi**, Consultant Diabetologist, Lilavathi Hospital, Mumbai, **Dr. Ranjit Unnikrishnan**, Vice Chairman, DMDSC, Chennai, **Dr. V. Mohan**, President, MDRF, Chennai, **Dr. David Klonoff**, Medical Director, MPHIS Diabetes Research Institute, San Francisco, USA, **Dr. T. S. Chandrasekar**, Chairman, MedIndia Hospitals, Chennai & **Dr. R. M. Anjana**, Vice President, MDRF, Chennai



**Dr. David Klonoff**, Clinical Professor of Medicine, U.S. San Francisco, & Editor-in-Chief, Journal of Diabetes Science and Technology, Medical Director, MPHS Diabetes Research Institute, San Francisco, USA was also conferred with the **20<sup>th</sup> DMDSC Gold Medal Oration Award**.



Dr. David Klonoff being awarded the **20<sup>th</sup> DMDSC Gold Medal Oration Award** by Ms. Jennifer McIntyre. Also in photo (left to right): Dr. Shashank Joshi, Dr. C. S. Pitchumoni, Dr. Ranjit Unnikrishnan, Dr. V. Mohan, Dr. R. M. Anjana & Dr. T. S. Chandrasekar

**Ms. Jennifer McIntyre**, U. S. Consul General, Chennai inaugurated the function and presented the awards to **Dr. C. S. Pitchumoni** and **Dr. David Klonoff**. **Dr. Shashank Joshi**, Consultant Diabetologist, Lilavathi Hospital, Mumbai presided over the function.



## MDRF'S RESEARCH WORK RECOGNIZED AT DUBAI AT THE WORLD DIABETES CONGRESS

The 21<sup>st</sup> Congress of the International Diabetes Federation (IDF) was held at Dubai, United Arab Emirates from December 4-8, 2011. Over 15,000 delegates from 172 countries attended this Congress. The IDF had invited **Dr. V. Mohan**, President, Madras Diabetes Research Foundation (MDRF), Chennai to deliver a Guest Lecture on “**Clinical Profile of type 2 diabetes in Asian Indians**”. A team of seven scientists from MDRF including **Dr. V. Mohan**, **Dr. Ranjit Unnikrishnan**, **Dr. R. M. Anjana**, **Dr. R. Guha Pradeepa**, **Dr. M. Deepa**, **Dr. Ranjani Harish** and **Ms. A. Amutha** participated in the Congress and a total of 31 abstracts were presented (oral & poster) in the congress. All the presentations were well received and appreciated. Our scientists also participated in a diabetes awareness walkathon called the 'IDF 5K Walk'.

### *Photo Gallery of IDF DUBAI 2011*



**Dr. V. Mohan**, President, **Dr. R. M. Anjana**, Vice President, **Dr. R. Guha Pradeepa**, Head, Research Operations & **Dr. M. Deepa**, Head, Dept of Epidemiology, Madras Diabetes Research Foundation during their oral presentation at the 21<sup>st</sup> IDF Congress, Dubai





**Dr. Ranjit Unnikrishnan**, Vice Chairman, Dr. Mohan's Diabetes Specialities Centre, **Dr. Guha Pradeepa**, Senior Scientist & Head, Research Operations **Dr. Ranjani Harish**, Head, Translational Research Department & **Ms. Amutha**, Research Fellow, Dept of Epidemiology, Madras Diabetes Research Foundation during their poster presentation at the 21<sup>st</sup> IDF Congress, Dubai



## HEARTY CONGRATULATIONS TO OUR JOINT MANAGING DIRECTOR Dr. R. M. ANJANA



Dr. R. M. Anjana receiving the "Boehringer-Knoll Junior Lectureship in Diabetes" award



Photo showing Dr. R. M. Anjana receiving the "Outstanding Women Achiever award" from Dr. Mayil Vahanan Natarajan, Vice Chancellor, The Tamilnadu Dr. MGR Medical University

Our Joint Managing Director **Dr. R. M. Anjana** has received a National Award for her research on Diabetes. She has been conferred the "**Boehringer-Knoll Junior Lectureship in Diabetes**" for the year 2012 by the Association of Physicians of India (API). This prestigious award has been given to her for her research work on diabetes particularly in the area of Epidemiology of diabetes. Recently she was also awarded "**Outstanding Woman Achiever Award**" by the Tamilnadu Dr. MGR Medical University.



## **HEARTIEST CONGRATULATIONS! TO OUR BELOVED CHAIRMAN & MANAGING DIRECTOR Dr. V. MOHAN**

For being conferred the PADMA SHRI AWARD by the Government of India for his relentless and selfless service in the field of Medicine (Diabetology). The Best will always be recognized & it spreads all around. For the commitment and dedication, in addition to Padma Shri, Dr. Mohan has been recently awarded Fellow, Madras Medical College (FMMC), Fellow, Indian National Science Academy (FNA), Fellow, Indian Academy of Sciences, (FASc), Bangalore, Lifetime Contribution Award by Vision Mission Foundation, Noida, APDF 2011 Oration Award, Nellore, World India Diabetes Foundation (WIDF) Award, from Mayo Clinic, USA



Dr. V. Mohan receiving Padma Shri Award



Dr. Mohan receiving FNA Award



Dr. Mohan receiving APDF Oration Award



Diabetes 12 Monitor





## STRESS AND NON - COMPLIANCE - THE DOUBLE - EDGED SWORD OF DIABETES

**Ms. Vidyulatha Ashok**

**Psychotherapist**

**Dr. Mohan's Diabetes Specialities Centre**

Sometimes, fighting with diabetes can be like a losing battle, both to the individual and the medical team. Some patients are hard on themselves, which can be self-defeating and frustrating. This is because they are trying everything to keep their sugars under control, but with age, duration, severity, and a host of other clinical factors beyond their control, becomes a huge challenge.

Stress and Non-compliance are the two main culprits that act as barriers to effective treatment of diabetes. While stress is beyond one's control (sometimes), compliance, to a certain extent. Rigidity of habits and unhealthy lifestyle can be a huge deterrent, too. We often find patients unwilling to change, say, their diet pattern, timing or lifestyle, simply because they do not want to let go, or for some strange reason, feel they are being disloyal to their ingrained values, customs and traditions. Eg. fasting.

Stress can be a confounding factor. Patients often enquire, "How do we know when we are under stress?" Technically, when the environmental demands exceed one's personal coping resources, stress sets in. In a layman's terms, when one is pushed

beyond one's limits, so that one starts feeling tired, irritable, anxious, angry.....hear the alarm bells ringing. Eg. stress headaches (tension headaches).

Many a time, stress is self-imposed, usually due to impractical thinking, high expectations and wanting to be in control. More flexibility in thinking, and adaptation to situations, as and when they come, can help reduce one's stress. However, sometimes, stress can be genuine and beyond one's control, as in, having financial problems, relationship issues, job pressures, ill health, going through an emotional crisis, and so on. At such times, one will learn the coping strategies, but in the meanwhile, the sugars predictably shoot up.

Diabetic individuals face the added pressures of dealing with situational stress of this kind, as well as trying to manage their sugars – by eating on time, the right foods, taking their medication, and doing some physical activity as recommended. Any deviations from the regimen, thereby, may result in hyperglycemia or even hypos. This results in a rush to the doctor/ lab, to check if everything is in order. We have seen patients



run through a gamut of emotions at the hospital, ranging from anger, fear, guilt, sadness, hopelessness.

Diabetic individuals endure a lot of guilt and anguish, for putting their families through financial burdens and emotional stress when they fall ill, or have to be dependent on others. At such times, social and emotional support can help bolster one's

flagging morale.

At the end of it all, one wonders whether there is some specific formula to manage one's diabetes perfectly, but on the brighter side, stress management, regular compliance and lifestyle modifications, can make one feel more in control of one's health, and improve one's quality of life, in the long run.



## RICE FLAKES SUNDAL

**C. BANU PRIYA**  
**Diabetes Educator**  
**Dr. Mohan's Diabetes Specialities Centre**

### Ingredients:

Red rice flakes	-	75g	Asafoetida	-	1 pinch	Red Chillies	-	2
Bengal gram whole-	50g		Salt	-	to taste	Coriander	-	1 tsp
Tamarind	-	10g	Mustard seeds	-	1tsp	Roasted Bengal		
Onion	-	50g	Black gram dhal	-	5g	Gram dhal	-	1 tsp
Oil	-	1 tsp	Roasted Bengal gram dhal	-	5g			
Turmeric powder	-	1 pinch	Red chillies	-	2			

### Method:

1. Soak Bengal whole gram for overnight and boil it.
2. Make thick tamarind juice.
3. Mix rice flakes, boiled Bengal gram, turmeric powder, asafoetida, tamarind juice, salt and keep aside.
4. Ground red chillies, coriander and roasted Bengal gram dhal
5. Add oil in a pan and fry the mustard seeds, blackgram, Bengal gram dhal, red chillies, ground mixture, onion and cook well.
6. Add these fried ingredients to the above mixture which is kept aside.
7. Mix well and serve.

### Nutritive value

Energy	:	270 Kcal
Carbohydrate	:	57.0 g
Protein	:	7.0 g
Fat	:	4.0 g
No of servings	:	2
Portion size	:	1katori / serving





**Frequently  
Asked  
Questions**

# Frequently Asked Questions

## 1. What is hypoglycaemia and how do you manage it?

Hypoglycemia otherwise called as low blood sugar is the most common complication seen in diabetic subjects. This may occur either due to vigorous physical activity, excessive dosage of anti diabetic medications or due to undue delay in the intake of food. The symptoms of low sugar are usually non-specific and patients may feel some discomfort, sweating, palpitations, weakness and giddiness. In neglected cases, the patient may even go into coma due to low sugar. If possible, it is advisable to check blood sugar at this time. If not, the patient should be given some sugar drink or fruit juice. Sugar or glucose is also useful to correct low sugar. If patient is unconscious, it is best to give intravenous glucose under medical supervision. Frequent low sugar reactions are best avoided in all diabetic patients, especially the children and the elderly by adjusting the dose of anti diabetic medications.

## 2. What are the precautions should be taken by a diabetic patient during sick days?

Patients generally tend to omit their medications during intercurrent illnesses. This is extremely dangerous because the stress is almost always associated with increased secretion of counter-regulatory hormones leading to a rise in blood glucose in spite of a reduced intake of carbohydrates and it may precipitate ketoacidosis. Therefore the following precautions should be taken during sick days:-

- Medications: Oral Hypoglycemic Agents/insulin should not be omitted; dosage adjustments must be done depending upon

frequent monitoring of blood sugar and urine ketones with the advice of the treating physician.

- If the patient is unable to consume food then he should be hospitalized and adequate hydration should be given through nasogastric tubes or intravenous routes. If the patient can take orally, then liquid diet with fluids containing glucose, sodium and potassium should be advised.
- The patient should be advised to contact a doctor immediately in case of any illness and necessary treatment should be instituted.

## 3. What are the advantages of Yoga therapy?

- I. It helps to improve diabetic control as it
  - improves the blood circulation
  - enhances the pancreatic activity
  - stimulates insulin secretion
  - promotes digestion
- II. Yoga also helps to build up concentration and will power thus helping to sustain a weight-loss program.
- III. Most yoga exercises have a profound effect on improving circulation especially to the extremities.
- IV. It helps to tone and shape the body and improves posture and flexibility.
- V. Yoga helps to keep the blood vessels elastic and along with relaxation techniques, it helps to reduce the blood pressure.
- VI. It is said to have a positive effect on digestion, endocrine and reproductive systems.
- VII. In general, it contributes to the feeling of well being.



#### **4. What is meant by Glycemic Index?**

Different carbohydrates raise the blood sugar to a variable extent. The glycemic index indicates the extent of rise in blood sugar in response to a food in comparison with the response to an equivalent amount of glucose. The glycemic index is useful in planning a diet for diabetic individuals. Generally cereals like wheat and rice and root vegetables such as potato and carrots have high glycemic index (65-75%). Fruits have intermediate glycemic index (45-55%). Legumes and lentils such as dries beans, peas, green grams and bengal grams and have low glycemic index (30-40 %) and are beneficial to diabetic patients in moderate amounts. Diets with a lower glycemic index are generally rich in fibre.

#### **5. What is self-monitoring of blood glucose? Who should do self monitoring and what are the advantages of self-monitoring of blood glucose?**

Self-monitoring of blood glucose is one of the most useful methods to assess diabetic control. Ideally all patients should monitor their own blood glucose levels using meters and test strips. All patients on insulin therapy, especially those on multiple dose regimens, patients with widely fluctuating blood glucose levels, patients prone

to severe ketosis or recurrent hypoglycemia, those manifesting hypoglycemic “unawareness”, pregnant diabetic patients and those with abnormal “renal thresholds” i.e. in whom urine tests are unreliable should do regular monitoring.

#### **Advantages of self-monitoring of blood glucose:**

- It allows blood glucose levels to be easily and conveniently estimated at any time of the day or night, this enable the patient and doctor to get a clear idea about fluctuations in blood sugar.
- It allows the patient increased flexibility in his life style.
- With basic education about adjusting dosages, the patient himself can make minor changes in treatment to have optimal control.
- Self-monitoring of blood glucose is the only practical method to diagnose hypoglycemia at the precise time of its occurrence.
- Self-Monitoring helps to improve the degree of control and achieve better control as shown by better glycosylated haemoglobin (HbA1c) level and thereby prevent diabetic complications.



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To



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