



# Sanjeevani Ayurveda Foundation

## NEWSLETTER

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### EDITORIAL

In the last issue of our Newsletter (October 2005), we had looked at anaemia. When anaemia levels in different states of India are compared, it is found that the level of anaemia does not have any relationship with the material wealth of the state.

In this issue we examine the relationship of anaemia to nutrition. Modern understanding of nutrition, derived solely from Western science, is based on calories, proteins, fats, carbohydrates etc. A balanced, nourishing diet is supposed to consist of a minimum of each of these components. When we compare levels of anaemia in different states of India to nutrition levels, it turns out that anaemia levels have no relationship to the nutritional intake in terms of calories, proteins and fats. The Ayurvedic understanding of nutrition is altogether different from the modern/Western understanding. A brief description of the Ayurvedic approach to nutrition is given in this issue.

The first issue of our Newsletter (April 2005) dealt with episiotomy, a surgical cut during child birth, a standard procedure in modern obstetrics. Tamilnadu is perhaps the first state in India to discourage the practice of episiotomy in Government institutions. As a first step, the Health Department of the Government of Tamilnadu conducted a workshop highlighting the problems with the practice of episiotomy. This issue carries a report on this workshop. There is also a review of a booklet published by the Institute of Public Health (IPH), Chennai, titled "Episiotomy - a real need or ritual".

### NUTRITION - THE AYURVEDIC APPROACH

Ayurveda gives a lot of importance to food. Ayurvedic texts provide a vast amount of information on food substances based on their properties/qualities. Food substances are classified based on their action on the three doshas (*Vata*, *Pitta*, *Kapha*), the capacity to nourish the seven *Dhatus* (tissue elements - *Rasa*, blood, flesh, fat, bone, bone marrow, reproductive tissue), the action on digestion, their appropriateness to changing seasons and so on. Properties of a variety of food substances - such as grains, pulses, meats, different kinds of water,

types of milk, milk products such as butter, ghee, buttermilk, curd, various kinds of sugar, oils from different sources, wines and alcohols, vegetables, fruits and herbs and food preparations etc. are enumerated in Ayurvedic texts.

Given such a wide variety of food substances, what should be consumed regularly as part of a balanced diet is an important question. It is our diet which is responsible for health or ill health. A healthy state of the body is one in which various body constituents are in equilibrium. A balanced diet is one which does not upset this equilibrium but helps to maintain it. In other words, the food we eat should maintain the equilibrium of the three doshas - *Vata*, *Pitta* and *Kapha* and of the seven *Dhatus* (*Rasa* etc.) etc. Food consumed appropriately gives strength, nourishes the *Dhatus*, the sense organs and the intellect and gives a long life.

The diet we follow should also help maintain good digestion. Good digestion is an indication of good health. Many diseases arise from poor digestion. The word which refers to the power of digestion is *Agni* which means fire. Like the fire which possesses the property to cook, so also the digestive fire cooks or digests the food we consume. A proper diet nourishes the *Agni* just as well-regulated fuel nourishes a fire. A well-nourished *Agni* is the main support for the body.

When we consume food, the following factors need to be considered:

**QUANTITY:** An important consideration while consuming food is the quantity (*Matra*). Food when consumed in an appropriate quantity stimulates and activates the digestive fire (*Agni*). Difficult to digest (heavy/*Guru*) food and easy to digest (light/*Laghu*) food, both need to be consumed in the proper quantity for proper digestion. Heavy foods like sweets, meats etc. should be consumed only upto half the satisfaction. Light foods may be consumed to full satisfaction but not more than that. In general one should consume food only to 3/4<sup>th</sup> the capacity of the stomach. Half the stomach should be filled with solid foods and a quarter with liquid. The remaining quarter should be left empty.

**ORDER:** The order in which food is taken is also important. Food which is heavy to digest, oily, sweet and solid, such as a sweet dish, is consumed in the beginning

of the meal. In the middle of the meal food that is predominantly sour and salty such as sambar and rasam in the South Indian meal, is consumed. In the end of the meal light, easy to digest, dry (not oily), liquid type of food is consumed. Butter milk is an example of such a food. These days, perhaps under the influence of the Western habit of eating a dessert, we have taken to eating sweets at the end of the meal. The advantage of eating the sweet dish at the beginning of the meal is that after this heavy food, we can correctly estimate the remaining quantity we need to eat.

**SEASON:** The digestive fire and the three *doshas* undergo changes in each season. Our diet must be designed to balance the changes in these factors. For instance, in winter *agni* is at its strongest. Therefore, the diet should consist of foods which are heavy to digest so as to feed the *agni* sufficiently. However, in summer *agni* is at its weakest and the season is hot, dry and dehydrating. In order to balance this, diet should be easy to digest, cooling, oily (not dry), liquid, sweet in taste and refreshing. Some examples are coconut water, sweet fruit juices and *kanji* (gruel) of boiled rice.

**PROPER TIME FOR CONSUMING FOOD:** One is ready for a meal only after eliminating urine and feces; when belch is clean; when the heart feels light and clear; when appetite is well-developed; when senses are functioning clearly; and when the body feels light. Generally, food should be consumed only after the previous meal has been digested.

**INCOMPATIBLE FOODS (VIRUDDHA):** Some food combinations are incompatible and hence they ought not to be consumed together. For example, milk should not be combined with any food which has a sour taste. Nowadays, milk shakes (milk with fruits) have become very popular. Milk is also often added to curd to make curd less sour. Both these are incompatible combinations which can lead to many diseases. Curd with fruits is another incompatible combination. Another famous example of an incompatible combination is milk with fish. This is well-known to people all over our country.

Generally our diet should consist of rice, wheat, barley (Yava in Sanskrit), meat of animals from arid areas, tender radish, hareetaki (harad or Kadukkai in Tamil), amalaki (gooseberry), grapes, moong daal, sugar (unrefined), ghee, honey, rain water, milk, pomegranate and saindhava salt (Induppu in Tamil). This ensures a balanced diet. Food should include all the six tastes (sweet, sour, salty, bitter, pungent and astringent) but should be predominantly sweet in taste (eg: rice and wheat). Such a diet gives all the nourishment that the body requires and prevents diseases. (For instance, a diet predominantly sour, salty, and pungent is one of the causes for anaemia). A meal should not consist

predominantly of vegetables. Food should be freshly cooked and warm and not reheated. Some of the food substances which should not be regularly consumed are curd, blackgram, meat of domestic animals, fish, sprouted grains, dried vegetables, raw radish and curdled milk (Paneer).

## CURD

Many Indians seem to consume curd indiscriminately. Some pediatricians even recommend curd to be consumed daily as a substitute for milk for children who dislike milk. One of the properties of curd is that **it can cause anaemia** if consumed indiscriminately.

Curd has the following properties: It is constipating and heavy to digest. Curd is hot in potency (not cooling) and controls Vayu. It increases Kapha (phlegm) and Pitta. Curd increases fat in the body. It contributes to strength and increases semen. Curd is useful in treating certain diseases. It is also a useful food when there is a lack of digestion.

However, when consuming curd we have to keep in mind certain restrictions. **Curd should never be consumed at night. It should not be consumed daily. It should not be heated. It should not be used in the hot seasons - spring, summer and autumn.** So, it should be consumed only in the cooler seasons - the rainy season and the winter. Even in these seasons, it should not be consumed daily, or at night. When it is consumed it should be eaten along with one of the following - green gram, sugar, honey, ghee or gooseberry. Curd which is not fully fermented should not be consumed. Those who violate these restrictions are likely to suffer from the following disorders - **fever, bleeding disorders, skin diseases, Herpes (Akki in Tamil) anaemia, giddiness, and swelling in the body (oedema).** Persons with respiratory diseases should not consume curd since it increases phlegm. Curd has a property known as abhishyandi, which means it coats and blocks the fine channels in the body which leads to many diseases.

## NUTRITION AND ANAEMIA

In the last issue of our Newsletter we had discussed anaemia. States with a high per capita Net State Domestic Product (NSDP) are not the states with low anaemia levels among women and children. In fact Punjab, which has one of the highest per capita NSDP has one of the highest levels of anaemia among children. And states with the lowest anaemia levels also have low per capita NSDP. In this issue, we look at the relationship between anaemia and food intake in terms of calories, proteins and fat.

[The National Sample Survey (NSS) is the primary source of nutritional information in India. The data given here are from the 55<sup>th</sup> round of the NSS, 1999-2000]

**Average per capita intake of Calorie, Proteins and fat Per diem by major states \*  
and % of women and children with anemia\*\***

	Calorie		Protein		Fat		Anemia	Anemia
	Rural (Kcal)	Urban (Kcal)	Rural (gm)	Urban (gm)	Rural (gm)	Urban (gm)	Women %	Children %
A.P	2021	2052	49.4	50.8	29.5	41.5	49.8	72.3
Assam	1915	2174	47.7	56.5	22.3	38.7	69.7	63.2
Bihar	2121	2171	58.7	61.0	26.5	34.2	63.4	81.3
Gujarat	1986	2058	54.2	54.7	53.8	67.0	46.3	74.5
<b>Haryana</b>	<b>2455</b>	<b>2175</b>	<b>75.3</b>	<b>62.5</b>	<b>59.1</b>	<b>56.3</b>	<b>47</b>	<b>83.9</b>
Karnataka	2028	2046	54.2	53.5	36.6	45.1	42.4	70.6
<b>Kerala</b>	<b>1982</b>	<b>1995</b>	<b>52.4</b>	<b>55.2</b>	<b>38.8</b>	<b>42.9</b>	<b>22.7</b>	<b>43.9</b>
M.P	2062	2132	58.2	60.6	31.3	43.5	54.3	75.0
Maharashtra	2012	2039	56.5	55.9	39.7	52.6	48.5	76.0
Orisa	2119	2298	49.5	57.8	16.3	27.4	63.0	72.3
<b>Punjab</b>	<b>2381</b>	<b>2197</b>	<b>71.7</b>	<b>64.8</b>	<b>58.7</b>	<b>57.9</b>	<b>41.4</b>	<b>80.0</b>
<b>Rajasthan</b>	<b>2425</b>	<b>2335</b>	<b>76.9</b>	<b>70.4</b>	<b>53.5</b>	<b>61.5</b>	<b>48.5</b>	<b>82.3</b>
T.N.	1826	2030	44.9	51.7	29.5	43.2	56.5	69.0
<b>U.P</b>	<b>2327</b>	<b>2131</b>	<b>69.7</b>	<b>62.0</b>	<b>37.6</b>	<b>45.5</b>	<b>48.7</b>	<b>73.9</b>
W.B	2095	2134	51.6	55.5	24.2	40.2	62.7	78.3
<b>All India</b>	<b>2149</b>	<b>2156</b>	<b>59.9</b>	<b>58.5</b>	<b>36.1</b>	<b>49.6</b>	<b>51.8</b>	<b>74.3</b>

Source : \* NSS 55th round 1999-2000      \*\* NFHS (2) 1998-1999

#### CALORIE INTAKE:

The levels of anemia among women and children of Kerala are by far the lowest of all states in India. The per capita calorie consumption in Kerala is less than that in most other states and is below the national average. In fact, both in Urban and Rural Kerala, the calorie intake is lower than the national average. (This pattern remains consistent for all the years in which the NSS data is available, 1972-73, 1983, 1993-94, 1999-2000). Only two other states, Assam and Tamilnadu are lower in terms of calorie intake than Kerala. Some of the states which have a relatively high calorie intake are Rajasthan, Haryana, and Uttar Pradesh and in these states the levels of anemia among women are more than double that of Kerala. In Punjab which also has a high level of Calorie intake, the anemia level among women is nearly double that of Kerala.

#### PROTEIN INTAKE:

Kerala has a protein intake which is less than the national average, for both urban and rural areas. (This is true for all the NSS rounds, 1972-2000) Rajasthan, Haryana, Punjab and U.P. have protein intake far higher than that of Kerala.

#### FAT INTAKE:

Fat intake of Kerala is lower than the national average in the urban areas, and only marginally higher than the national average in the rural areas. Fat intake in Kerala is far lower than that of Gujarat, Haryana, Punjab and Rajasthan.

From the above, it seems that a diet high in calories, proteins and fat does not ensure a corresponding reduction in anemia levels. A diet which may be high in terms of calories etc. and yet is high in sour, salt, pungent (*teekshna*) tastes may still cause anemia, since these tastes are among the causative factors for anemia. As we have seen, the diet of Kerala is deficient by the norms of modern nutrition. Yet the reason Kerala has the lowest levels of anemia in the whole country is perhaps because the diet of the people of Kerala even today is traditional and based largely on Ayurvedic principles.

#### WORKSHOP ON EPISIOTOMY

On the 25<sup>th</sup> of October 2005, the Reproductive and Child Health (RCH) Project under the Health and Family Welfare Department of Tamilnadu, organized a one-day workshop on "Better Births Initiative". The workshop

was inaugurated by the Health Minister of Tamilnadu. The participants were heads of departments from practically all the Government Medical Colleges and Hospitals and senior officials of the Health Department.

The objective of the workshop was spelt out at the outset by Dr.Padmanabhan, the Joint Director of the RCH Project. He pointed out that episiotomy was an unnecessary and harmful procedure and that the workshop was intended to sensitize the doctors under the Health Department about this fact. The Secretary for Health and Family Welfare, Tamilnadu, Smt. Sheela Rani Chunkat, in her speech emphasized the need to make child birth a pleasant and happy experience for every mother who came to a Government institution for a delivery. The Commissioner for Indian Medicine in his speech urged Allopathic hospitals to make use of the extensive knowledge available in the Indian Systems of Medicine.

The highlight of the morning's proceedings was the narration by several Village Health Nurses (VHN) of their experiences in delivering children in rural areas of Tamilnadu. **A VHN from Tiruvallur District, with more than 30 years' experience, had conducted more than 16,000 deliveries, without a single episiotomy.** The audience consisting mostly of senior Government (Allopathic) doctors - who had been trained to believe that episiotomy was an essential part of the birthing process - was astonished that this was even possible. The same message came through in the presentations of several of the VHN's who had conducted thousands of deliveries. One of the interesting facts which came to light during these presentations was that it was only recently that these VHN's were "trained" to perform episiotomy. Some of the VHN's who felt compelled to perform a few episiotomies, admitted that they did this with a great sense of guilt.

Dr.Rathnakumar, Professor of Obstetrics, Chennai, in his talk titled "No place for routine episiotomy", presented a lot of data in support of this contention. Dr.Alphonse Selvaraj, Deputy Director, Institute of Public Health (IPH), Chennai, made a presentation entitled "Episiotomy - Real need or ritual". (For details, see Book Review in this page). The final presentation of the day was by Dr.P.L.T.Girija, Ayurvedic physician, on "The role of Indian Systems of Medicine (ISM) during pregnancy and after childbirth". This talk covered in detail all the pregnancy and post-delivery care in ISM. This pregnancy care ensures a safe and natural delivery without having to undergo either an episiotomy or a surgery (Caesarean).

The effort to persuade Government doctors to do away with episiotomy is continuing. According to government sources **after the workshop the rate of episiotomy has dropped in many government hospitals.**

## BOOK REVIEW

"Episiotomy - a real need or ritual" is a booklet (22 pages) published by the Institute of Public Health (IPH), Chennai, a premier institution of the Government of Tamilnadu. It is an informative booklet on Episiotomy.

This booklet briefly describes how this practice was introduced without any scientific evidence in its favour; and how numerous studies have revealed that this procedure has no benefits at all and that it only leads to serious complications including death. Until 1993, medical textbooks supported routine episiotomy as an essential part of childbirth but since then textbooks have stopped supporting routine episiotomy. Statements from several leading textbooks have been highlighted. The point that episiotomy is merely a medically-sanctioned female genital mutilation is forcefully made in this booklet. There are case studies of women who were subjected to episiotomy and who developed complications thereafter.

This booklet contains some interesting data about the rate of episiotomy in various institutions in and around Chennai. Episiotomy rates are the highest - almost 100% - in private hospitals and in Medical college hospitals (both Government and private). Episiotomy rates start falling as one goes down the hierarchy of governmental institutions, with Primary Health Centres (PHC) having a rate of only 7.3% and in Health Sub-centres (HSC), there are no episiotomies at all. This suggests that the episiotomy rate depends on the institution where delivery takes place. Government Medical college hospitals with post-graduate students have an episiotomy rate which is nearly double that of those without post-graduate students. This indicates that episiotomies are often done for the purpose of teaching the students. The high episiotomy rate in private hospitals suggests that there may be a profit motive behind such practice.

In the two maternity centers under the IPH, pregnant mothers are provided with Ayurveda/Siddha oils for (abdominal and perineal) massage and for (vaginal) applications as part of pregnancy care. And in both these centers no episiotomy is done. Hopefully other institutions, both government and private will follow the pioneering example set by the IPH, Chennai.

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