Pakistan Nutrition and Dietetic Society

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March Nutrition Month Supplement 2013

EAT RIGHT YOUR WAY EVERY DAY

MESSAGE FROM THE PRESIDENT

Dear Readers

AsalamAlaikum. It is March and Pakistan Nutrition and Dietetic Society (PNDS) is celebrating *'March Nutrition Month'*. Nutrition & Dietetic societies around the globe celebrate this month with various activities. The theme for 2013 is *'Eat Right Your Way, Every Day'*. The concept is to encourage healthy eating and recognize that food choices, way of life, culture, traditions and health conditions have a tremendous impact on a person's decision on *'what to eat and what not to eat'*.

This supplement is part of the PNDS Nutrition Month activities. It is meant to make the general public nutritionally aware. The information and articles included are scientifically sound, evidence based and penned by members of PNDS. Our members include a wide variety of health care providers, qualified and registered dietitians and nutritionist who are engaged in guiding people to achieve better health through better nutrition. Remember when you need food and nutrition information; rely on qualified professionals in the field. Unfortunately, there is a growing number of self -proclaimed 'Nutritionists' or 'Dietitians' who have no formal training in nutrition and dietetics. A quick way to check the authenticity of any dietitian or nutritionist in Pakistan is to ensure that they are PNDS members. In addition to having degrees in nutrition or dietetics many of our members have passed an exam by virtue of which they are entitled to be called a 'Registered Dietitian'or RD.

PNDS wishes all the readers a nutritionally protected healthy and happy life.

Happy reading.

Yours Sincerely

Nilofer Fatimi Safdar, MSc, MS, PhD

President, Pakistan Nutrition & Dietetic Society

ABOUT PAKISTAN NUTRITION AND DIETETIC SOCIETY

Ayesha Zahid Khan, Consultant Nutritionist

General Secretary PNDS

Pakistan Nutrition and Dietetic Society (PNDS) is a coalition of qualified people with an interest in nutrition and dietetics, founded in 2003. It aims to represent and promote the profession of nutrition to achieve a better nutritional status for the Pakistani population.

General membership of the Society is open to all those with an interest in nutrition. Those with necessary qualifications are entitled to get a regular membership. Currently, PNDS has more than 300 national and international members.

Since its inception PNDS has been involved in a wide range of professional activities such as:

Professional Development Activities for PNDS Members and Health Care Professionals:

Continuing Nutrition Education (CNE) Sessions are a regular bi-monthly activity of the Society. The sessions offer free participation to PNDS members; however non-members may attend with a nominal fee. A wide range of topics from the field of nutrition and dietetics are covered with updated, research backed information.

Hands on Workshops have been conducted to develop skills in several areas such as counseling techniques and paper writing skills.

PNDS Newsletter is published quarterly to provide state of the art information on different nutrition related topics.

Accreditation Exam is held to certify practicing dietitians and nutritionist to ensure credibility and professionalism.

Nutrition Seminars are organized on several topics such as: Women's Health, Nutrition and Non-Communicable Diseases and Childhood Malnutrition.

Nutrition Activities for Public Health:

Celebration of World Days for the general public and health care professionals are commemorated for selected 'world days' such as; World Heart Day, World Diabetes Day and March Nutrition Month.

Public Awareness activity participation in different health programs on the electronic media to ensure that qualified nutritionists and dietitians provide scientifically based advice on food, diet and nutrition related topics.

Participation in National Nutrition Policy Development:

PNDS participated as a member of the Commission for the Prevention and Control of Non-Communicable Diseases (NCDs).

International Society Memberships:

PNDS is an active member of regional and international dietetic societies.

For further details about PNDS, visit our website www.pnds.org or email us on info@pnds.org

Calcium, Vitamin D and Exercise Bone Health Triad

Samina Adam
PNDS-RD and Certified Fitness Instructor

Calcium, Vitamin D and exercise are the 3 members of the bone building team. They work in harmony in the development of healthy bones during childhood, maintaining optimal bone health in the adult years and delay or prevent the degeneration of bones in the later years of life. Osteoporosis is a disease of bones that leads to an increased risk of fracture. In osteoporosis, the bone mineral density (BMD) is reduced, bone micro-architecture deteriorates, and the bone becomes porous. Osteoarthritis is a group of mechanical abnormalities involving degradation of joints and is a result of wear and tear rather than due to a deficiency of calcium and vitamin D. However, appropriate physical activity has an important role in the prevention of both osteoporosis and osteoarthritis.

Calcium is the most abundant mineral found in the body, 99% of that is in the bones and teeth. A balanced diet provides an adequate amount of calcium. Dairy products are the best source of this mineral but ironically when people try to cut back on calories, dairy products are most often omitted. The sensible thing would be to use low fat dairy products instead of full cream milk and dairy products. The requirements for calcium can be affected by other components of the diet. A person whose diet is high in animal protein and sodium needs more calcium due to the loss of calcium from the body.

Vitamin D is synthesized in the skin by exposure to the rays of the sun. However, many of us do not get enough sun-exposure. It is recommended that one should get at least 10 minutes of exposure of arms, face and neck to sunlight. Even those who do go out in the sun may not synthesize enough vitamin D if they use sun block regularly. Generally dark skinned people need more exposure to the sun to generate adequate amounts of vitamin D.

Calcium absorption from the intestine is facilitated by vitamin D, thus insufficient vitamin D will then hinder the absorption of calcium. Vitamin D also aids bone mineralization by keeping blood calcium in a range that allows bone formation.

People are much more open to the idea of taking calcium and vitamin D but find it difficult to incorporate regular physical activity in their lifestyle. However numerous studies have concluded that proper exercise - both aerobic and weight bearing exercises- help in delaying the onset of bone disorders and may even prevent their development. In addition regular exercise helps in the prevention of many other chronic diseases such as hypertension, diabetes and heart disease.

FAO/WHO Recommended Calcium Intakes

Age Group	Calcium (mg)/Day
Adults <50 years	400-500
Adults >50 years	400-500
Children 1-3 years	400-500
Boys 11-18 years	500-700
Girls 11-18 years	500-700
Pregnant women	1000-1200
Breastfeeding women	1000-1200

FOOD SOURCES OF CALCIUM

Food	Serving Size	Calcium (mg)
Cow Milk	1 C	291
Skim Milk	1 C	302
Buffalo milk	1 C	415
Spinach cooked	½ C	100
Other dark green leafy vegetables	½ C	80-120

*Yogurt: Most of the yogurt in Pakistan is made from buffalo milk so the Calcium content is close to buffalo's milk. Yogurt made with cow's milk will have calcium content close to that of cow's milk.

Grapefruit-Drug Interactions can be Harmful to your Health

Professor Salma Halai Badruddin
Founding Member PNDS

Grapefruit contains many nutrients, including vitamin C, potassium and lycopene. But chemicals in grapefruit juice and grapefruit pulp interfere with the enzymes that break down various drugs in the digestive system including certain calcium channel blockers and cholesterol-lowering drugs. The result can be excessively high levels of these drugs in the blood which can be very dangerous and can cause a variety of health problems, such as liver damage or a rare condition called 'Rhabdomyolysis' which causes severe muscle and kidney damage.

The list of drugs that may interact with grapefruit is increasing rapidly therefore, whenever one is prescribed a new medicine one should read the accompanying literature carefully to see if there is a potential of drug-grapefruit interaction.

Drugs That Interact With Grapefruit

Drug Name	Type
Amiodarone (Cordarone)	Used to treat and prevent abnormal heart rhythms (arrhythmias)
Buspirone (BuSpar), Sertraline (Zoloft)	Antidepressants
Carbamazepine (Carbatrol, Tegretol)	An anti-seizure medication
Cyclosporine (Neoral, Sandimmune) Tacrolimus (Prograf)	Immunosuppressant drugs
Felodipine (Plendil), Nifedipine (Procardia), Nimodipine (Nimotop), Nisoldipine (Sular)	Calcium channel blockers used to treat high blood pressure
Saquinavir	An HIV medication
Simvastatin (Zocor), Lovastatin (Mevacor), Atorvastatin (Lipitor)	Statins used to treat high cholesterol

Drug-grapefruit interaction can occur even if the medication is taken 24 hours after eating grapefruit or drinking grapefruit juice. However, it may be possible to switch to an alternative medication that will not interact with grapefruit. Check with your doctor. Although the drugs listed above generally warn against this interaction in the accompanying literature; unfortunately many drugs are marketed in blister packs with no accompanying literature. Generally the chemist will have the literature and one should ask for it.

A Dietitian Today Keeps The Doctor Away!

Amna Kashif
PNDS-RD and Consultant Nutritionist

These days everyone is striving for a healthy lifestyle but very few in Pakistan are aware of the profession of Dietetics. Simply put a ***Dietitian is: "one whose job is to give people advice about what to eat in order to be healthy".*** Nutrition is the science of food, nutrients and the study of their actions on the body. The term deals with health, social, economic, cultural and psychological implications of food. Dietetics is the science of applying the principles of nutrition to improve the health of the population.

Dietitians in Pakistan are **"Diet Experts"** because they spend four years studying Nutrition as an area of specialization *(for details visit: www.chek,edu.pk)*.They are trained to provide services in hospitals, clinics, food industry, education sector, community work, media, corporate sector and research. Some of them have gone abroad for further studies or work related training. In Pakistan, dietetic professionals work under the title of "Dietitian" or "Nutritionist". In Pakistan, the academic qualification of the two is the same; it is the job responsibilities and work experience that differentiates them. Dietitians work in hospitals or clinical settings whereas Nutritionists are involved in public health and community based nutrition activities.

In 1966 it was reported: "(In Pakistan) there is no program directed towards the preparation of a hospital dietitian and hospital food service is in the hands of unqualified personnel". Since then, the profession of Dietetics has come a long way. In 2011, Pakistan Nutrition and Dietetic Society (PNDS) reported 250 working Dietitians/Nutritionists. To raise professional standards PNDS initiated the 'Registered Dietitian' exam *(for details visit: www.pnds.org)*. Annually, Dietitians/Nutritionists meeting the required criteria may appear in the exam. Those who qualify are granted the status of 'Registered Dietitian' (RD). Currently there are 46 RDs in Pakistan.

Globally today, the majority of diseases gaining prevalence are the result of an unhealthy lifestyle. To prevent or manage disease conditions like blood pressure, diabetes, obesity, cancer, anemia and bone pain, a visit to the dietitian is a must. A doctor may give some pointers related to diet but a physician is an expert in the field of medicine but NOT in the field of dietetics. A Dietitian/Nutritionist is better equipped to identify unhealthy eating habits and high risk behavior. Based on individual life style and available resources she will give detailed counseling and advice related to healthy eating practices. You may be healthy now, but your eating habits or cooking methods may be taking you towards a deep pit. A Dietitian/Nutritionist's expertise will help you to identify the pot holes and give you tools for filling them for a smooth ride of your life.
To help you decide if consulting a dietitian is important consider this advice:

"***Take care of your body- It's the only place you have to live!***" Jim Rohn

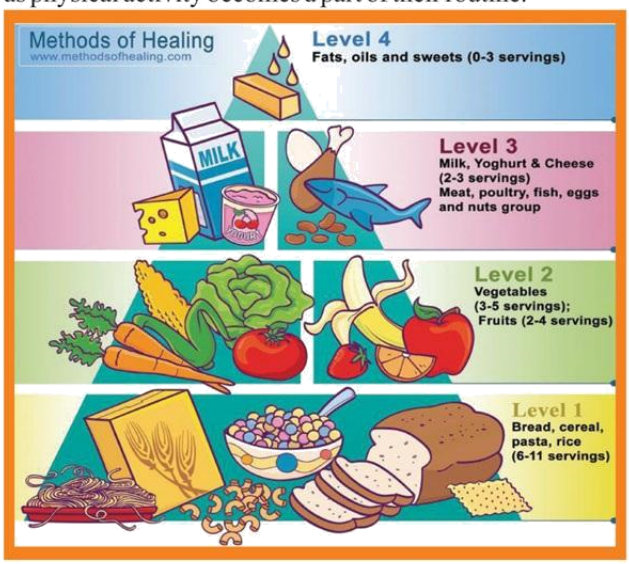
Increase Physical Activity to Reduce Dementia Risk

Professor Salma Halai Badruddin
Founding Member PNDS

Dementia is a decline in mental ability. It may be difficult to notice in the beginning, early indications are that memory, thinking, and judgment are impaired, and personality may deteriorate. It develops slowly, and affects mainly those aged over 60. It is one of the most important causes of disability in the elderly; with the increasing proportion of the elderly in our population, the number of dementia patients will rise also. The most common cause of dementia is Alzheimer's disease, which accounts for approximately 50 % to 70 % of cases.

Scientists have long recommended mental and social stimulation to protect against dementia. However a prospective study of 639 people in their 60s and 70s published in the American Heart Association journal Stroke showed that older people who increase their physical activity may reduce their chances of getting dementia. The results showed that older, non-disabled people who regularly engaged in physical activity were able to reduce their risk of vascular-related dementia by 40 % and of cognitive impairment of any etiology by 60 %. The protective effect of regular physical activity was unaffected by age, education, changes in the brain's white matter, or even previous history of stroke or diabetes.

Moreover, the results join part of an increasing body of evidence indicating that regular physical activity promotes brain health. Physical activity of moderate intensity at least 30 minutes, 3 times a week, is recommended to prevent cognitive impairment, especially for people with vascular risk factors such as hypertension, stroke or diabetes. For optimal health, the American Heart Association recommends at least 150 minutes of moderate exercise or 75 minutes of vigorous exercise per week. It is also worth remembering that regular physical activity can relieve tension, anxiety, depression and anger. While individuals may notice a 'feel-good sensation' immediately following physical activity, most people also note an improvement in general well-being over time during the weeks and months as physical activity becomes a part of their routine.



Dietary Iron

Ayesha Khalid
Member PNDS and Clinical Dietitian

Iron deficiency is highly prevalent in women of child bearing age and in children less than 5 years of age. Iron from animal food sources- 'heme iron' is usually more readily absorbed than iron from plant food sources- 'non-heme iron'. It is best to include a source of vitamin C or a small amount of heme iron along with your plant-iron meal to improve the absorption of non-heme iron. Please note that some foods traditionally considered iron-rich are not such good sources of iron (see Box).

The absorption of the iron from medical supplements may be decreased by 50 % when taken with food. Iron from medical supplements is best absorbed when taken on an empty stomach with a glass of water or orange juice. If iron supplement must be taken with food to avoid gastrointestinal distress, it should not be taken with tea, coffee, dairy products, or calcium supplements, because each of these can decrease iron absorption.

FAO/WHO Recommendations for Iron Intakes*

Age Group	Iron (mg/day)
Children 1-5	12
Adult males	14
Adult females	29

*These recommendations are for those populations whose diet contains predominantly plant sources of iron, such as the average low and middle income Pakistani diets

Iron Content of Common Foods

Food	Serving size	Iron (mg)
Sources of Heme Iron		
Chicken liver	1 oz (30 gm)	2.4
Beef liver	1oz (30gm)	2
Egg Yolk	1	0.9
Ground beef	1 oz	0.6
Chicken	1 oz	0.4
Fish	1 oz	0.2
Sources of Non-Heme Iron		
Spinach	½ cup cooked	3.2
Garbanzo beans (cholley)	½ cup cooked	3.0
Red kidney beans	½ cup cooked	2.6
Channa dal	½ cup cooked	1.3
Whole wheat bread	1 slice/1 small chapatti 6"	0.9
Raisins	1 oz (30gm)	0.18
Beet root	¼ cup cooked	0.40
Dates	3	0.32
Apple with skin	1 med (140gm)	0.25
Apple without skin	1 med (130gm)	0.09