Editorial

A good breakfast is good for health

It has recently been observed that increase in the prevalence of metabolic syndrome in Indian population, especially in younger age group is mostly related to the bad nutrition and poor breakfasts. Breakfast is the first meal of the day eaten in the morning. It provides the body with fuel by breaking our overnight fast and from this the name comes as breakfast. The famous phrase "Breakfast like a king, Lunch like a prince, and Dine like a pauper" is quoted more often than actually practiced in the modern era due to either ignorance or improper lifestyle habits. A lot of research has been done to validate this old saying, and all of them support the importance of a proper breakfast on a regular basis. Therefore, we wanted to highlight this basic aspect of our daily life to promote good health and awareness among our readers as a part of preventive and promotive physiology.

Why do people skip breakfast or eat it poorly? Some individuals do not feel hungry in the morning. Lack of sleep or heavy dinner in the previous night, lack of time to get ready in the morning, or the hurry to school/college/office are some of the common reasons cited.^[1]

Ideally, the breakfast should be eaten within 2 h after waking up. However, the modern lifestyle has changed the morning routine in last few decades. Nowadays, many schools, colleges, offices start early in the morning. Hence, the time to prepare a good breakfast also decreases, and it becomes difficult for the wife or mother to cope with this demanding routine on a daily basis. The people at house responsible for sending the office goers and children often neglect their own breakfast timing to cater to other's needs.

So, what does one lose by decreasing the quantity and/or quality of a good breakfast? A good breakfast comes loaded with energy, proteins, vitamins, and essential minerals. An ideal breakfast must consist of 20–35% of daily calorie requirement. A proper breakfast eaten regularly can:^[2]

- 1. Provide essential fuel for body and mind
- 2. Boost cognitive function
- 3. Kick starts metabolism
- 4. Helps in weight control
- 5. Provides fiber intake, especially if it is homemade
- 6. Ensures long-term health

Fuel for Body and Mind

Ideally, an adult should have 8–10 h of sleep every night. Therefore, body undergoes fasting of minimum 8 to maximum 12 h after a dinner, and this depletes the body glycogen stores for supplying energy glucose at night. Morning breakfast restores the glucose level in body, depleted at night. Glucose is the essential carbohydrate for brain activity. Morning breakfast is more important for children and adolescents because of their increased energy demand. Studies have shown that people who eat adequate breakfast daily are more relaxed and energetic at their task in the later part of the day. However, the good breakfast habits start early in life. Parents have to make efforts to ensure that their child is eating a good breakfast. [3]

Cognitive Function

The early morning blood sugar surge helps in forming acetylcholine, which acts as a memory boosting neurotransmitter, also involved in reward and attention centers of the brain. Morning release of dopamine and acetylcholine improves mental focus, memory, and brain productivity. Therefore, a good quantity of homemade breakfast is very essential for children. Research has shown that children eating regular breakfast performed better at school than those who skipped breakfast. The children with adequate and nutritious breakfast habit have better memory, problem-solving skill, memory retention, focus, and mental alertness. [4]

Kick Starts Metabolism

During sleep, body shuts down the metabolic rate, and it continues in the morning till next food intake. The cortisol surge in the morning combined with food as its substrate helps in enhanced metabolism which remains maintained throughout the day. A lack of good breakfast is perceived by the body as a starvation signal. Hence, body preserves its cellular function by keeping the rate of metabolism down. Thereafter, even when we make up for the loss in breakfast by overeating at lunch time or by snacks, due to the lack of cortisol peak the kick start of metabolism never

Pal: A good breakfast is good for health

takes place. Despite the higher cortisol in modern man under stress, the slowdown of metabolism does not stop because the physiology of cortisol peak following natural diurnal rhythm could be different from cortisol secreted under stress.

Helps in Weight Control

The very fact that morning breakfast sets metabolism in motion also helps in keeping weight under control. Morning breakfast is reportedly more satiating than any other meal as it decreases subsequent hunger pangs. Therefore, those people ignorant of this simple physiology, but desperate to lose weight, often skip breakfast and do not get the desired loss in their weight. Such individuals also tend to give in to unhealthy choice of snacks and meals further adding their weight. The habit of eating at regular interval is always better than skipping meals followed by intake of larger meals. Despite this knowledge, if one wants to skip meals, it is always advised never to skip breakfast.

Provides More Fiber Intake

A homemade breakfast often comes with added benefits of fiber in diet in the form of whole grain bread or cereals, etc., a healthy fiber-rich breakfast helps in sustained release of glucose and this, in turn, reduces the craving for snacks before lunch time.

Ensures Long-term Health

Nutritious breakfast also boosts immunity. Regular intake of nutritious and adequate breakfast has been associated with decreased incidence of type 2 diabetes mellitus, obesity, and hypertension. [6] Lack of interest in eating in the morning is often linked to sleep deprivation or a decreased quality of sleep. Therefore, as one becomes aware of the need to take regular breakfast, one very often regulates the night time activity to ensure adequate time for morning routine. This, in turn, ensures good sleep habit and breakfast ritual ensuring a long-term good health.

What to do if one finds the task of eating breakfast boring? One can always add a variety of choices for breakfast. This not only decreases the monotony in morning routine but also adds different nutrients along with flavors. Refined carbohydrates such as white bread and jam can be replaced by roti, poha, suji upma, dosa, and vegetable sandwich. These traditional home cooked dishes are packed with natural fibers. These prevent sudden release of carbohydrates into blood

stream thereby prevent early glucose peak followed by insulin mediated rapid entry into tissues leading to storage as fat. Therefore, home-made breakfast is a better way in terms of nutrition compared to commercially tinned or packed or processed food.

However, the term adequate often loosely cited as heavy for breakfast should not be interpreted as calorie rich or oil-rich food such as puri, paratha, or oil fried items. Fat content should be regulated and replaced with more quantity of complex carbohydrate, protein, whole grain cereals, and fiber in the morning breakfast. Processed or packeted food should be avoided. Inclusion of eggs, fresh fruit juice, and seasonal fruits adds to the daily requirement of essential vitamins, minerals to body. Overall, the breakfast should preferably be homemade, wholesome, nutritious, balanced, and adequate according to age, gender, and physical activities and should be taken regularly. Regular intake of good breakfast will certainly reduce the incidence of obesity, diabetes, hypertension, and heart disease that are so prevalent in the Indian subcontinent. The good breakfast habits must develop early in life and parents should play their role in developing this healthy lifestyle practice.[3]

GKPal

Department of Physiology, Jawaharlal Institute of Postgraduate
Medical Education and Research, Puducherry, India

Address for correspondence:

Dr. G K Pal,

Department of Physiology, Faculty-in-Charge, Advance Center of Yoga, Jawaharlal Institute of Postgraduate Medical Education and Research, Puducherry, India. E-mail: drgkpal@gmail.com

REFERENCES

- Sirichakwal PP, Janesiripanich N, Kunapun P, Senaprom S, Purttipornthanee S. Breakfast consumption behaviors of elementary school children in Bangkok Metropolitan Region. Southeast Asian J Trop Med Public Health 2015;46:939-48.
- Jenkins KT, Benton D, Tapper K, Murphy S, Moore L. A cross-sectional observational study of the nutritional intake of UK primary school children from deprived and non-deprived backgrounds: Implications for school breakfast schemes. Int J Behav Nutr Phys Act 2015;12:86.
- 3. Cowbrough K. Good breakfast habits start early. J Fam Health Care 2014;24:20-2, 24.
- Papoutsou S, Briassoulis G, Hadjigeorgiou C, Savva SC, Solea T, Hebestreit A, et al. The combination of daily breakfast consumption and optimal breakfast choices in childhood is an important public health message. Int J Food Sci Nutr 2014;65:273-9.

Pal: A good breakfast is good for health

- Bhavya SN, Prakash J. Comparison of nutritional qualities and antioxidant properties of ready-to-eat fruit-enriched corn based breakfast cereals. Malays J Nutr 2012;18:373-82.
- Saxena R. Break your fast with a good breakfast. Dream 2047 2016;18:29-30.

| Access this article online | |
|----------------------------|--------------------------------------|
| Quick Response Code: | Website: www.ijcep.org |
| | |
| | DOI: 10.4103/2348-8093.180012 |
| ENTARTHE. | |

This is an open access article distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as the author is credited and the new creations are licensed under the identical terms.

How to cite this article: Pal GK. A good breakfast is good for health. Int J Clin Exp Physiol 2016;3:1-3.



"Quick Response Code" link for full text articles

The journal issue has a unique new feature for reaching to the journal's website without typing a single letter. Each article on its first page has a "Quick Response Code". Using any mobile or other hand-held device with camera and GPRS/other internet source, one can reach to the full text of that particular article on the journal's website. Start a QR-code reading software (see list of free applications from http://tinyurl.com/yzlh2tc) and point the camera to the QR-code printed in the journal. It will automatically take you to the HTML full text of that article. One can also use a desktop or laptop with web camera for similar functionality. See http://tinyurl.com/2bw7fn3 or http://tinyurl.com/3ysr3me for the free applications.