Day-6

AICTE Induction Program

HOLISTIC HUMAN HEALTH

Team of Doctors - Student Induction Program

Welcomes you to
Holistic Human Health Course

HOLISTIC HUMAN HEALTH

UNDERSTANDING	APPLICATION - PROGRAM FOR SELF REGULATION		
1. UNDERSTANDING HUMAN BEING	KEEPING BODY & MIND IN HARMONY		RETURNING BACK TO HARMONY OF HEALTH
SELF ← CO-EXISTENCE → BODY	NURTURING	PROTECTING	1. PREMONITORY SYMPTOMS
2. INDICATORS OF HEALTH	1. ROUTINE	1. CLOTHING	2. DIETARY CORRECTION
3. PURPOSE OF HOLISTIC HEALTH	2. INTAKE	2. FOOTWEAR	3. CORRECTION OF ROUTINE
4. HARMONY IN HEALTH	3. LABOUR	3. SHELTER	4. LABOUR, EXERCISE, POSTURES, BREATHING
5. PRINCIPLES GOVERNING THE BODY	4. EXCERCISE		
	5. ASANA & PRANAYAM		
	6. MEDITATION		

HEALTH OF FAMILY

HEALTH OF SOCIETY & NATURE

UNDERSTANDING INDIVIDUAL CONSTITUTION

UNDERSTANDING THE CONCEPT OF REGENERATION AND REVITALISATION

UNDERSTANDING THE CONCEPT OF REPRODUCTIVE AND SEXUAL HEALTH

Water Intake

Water

- Quality
- Quantity
- Sanskar
- Consumption

Water Intake

- 70% of human body is filled with water.
- Water is life of living organisms.
- It is source of health if taken in pure form, at right time and appropriate quantity.
- But the same water if taken in impure form at the wrong time and wrong quantity will cause disturbance in our overall wellbeing.

Importance of water

- Keep temperature normal i.e. thermoregulation
- Lubricate and cushion joints
- Protect spinal cord and other sensitive tissues
- Get rid of wastes through urination, perspiration, and bowel movements
- Maintain cellular homeostasis
- Maintenance of vascular volume
- As the transport medium for providing nutrients within

Drinking Water, Available at, https://toxtown.nlm.nih.gov/sources-of-exposure/drinking-water (accessed on 14 May 2020)

Best Water for Drinking

- Ayurveda advice rain water from unpolluted environment, collected in clean vessel and which has not changed in colour, taste and odour, should be used for drinking always.
- Rain water is considered to have six qualities; coldness, purity, benevolence, pleasantness, clearness and lightness.

General Guidelines for drinking water

- To maintain the healthy status of body it is advised not to withhold the natural urge of thirst
- Person who is thirsty it is advised not to eat food and one who is hungry it is advised not to drink Water.
- If a person who is hungry takes water and a thirsty takes food, their chances of suffering with abdominal disease will be high.
- In general even a healthy person is recommended to drink only required quantity of water in all season other than *Sharat* (autumn) and *Grishma* (summer).

Quality of water

- The World Health Organization estimates that globally, at least 2 billion people use a drinking water source contaminated with faeces and contaminated water and poor sanitation are linked to transmission of diseases such as cholera, diarrhoea, dysentery, hepatitis A, typhoid etc

Drinking-water, World Health Organization, Available at https://www.who.int/news-room/fact-sheets/detail/drinking-water (accessed on 14 May 2020)

- Now a day’s people are consuming water which is purified by reverse osmosis and ultra violet rays.

- But scientific community is still discussing the safety of water purified by techniques like reverse osmosis and UV rays as many studies are indicating that water purified by above methods is often harmful to health.

DOI: 10.7860/JCDR/2016/19621.7864

Original Article

Internal Medicine Section

Association of Vitamin B12 Deficiency and Use of Reverse Osmosis Processed Water for Drinking: A Cross-Sectional Study from Western India

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ABSTRACT

Introduction: Prevalence of Vitamin B12 deficiency has increased in community in recent time. Possibility is raised for new and yet unidentified factors being associated with this increased prevalence. One of these factors frequently questioned is use of Reverse Osmosis (RO) processed water for drinking.

Aim: We aimed to study association of use of RO processed water for drinking with Vitamin B12 deficiency.

Materials and Methods: This cross-sectional study was done at tertiary care centre of Western India. Total 250 participants were recruited after excluding those participants with known factors responsible for Vitamin B12 deficiency. Information about gender, type of diet, milk intake and duration, dairy product intake, use of RO water and Vitamin B12 level was collected.

Results: Total 70 (28%) participants out of 250 were having Vitamin B12 deficiency. Forty (50.6%) of 79 participants using RO water were Vitamin B12 deficient against 30 (17.5%) of 171 using other sources. Logistic regression analysis showed independent association between use of RO water and Vitamin B12 deficiency. Although association of male gender, milk quantity of less than 100 ml per day and duration of RO water intake with occurrence of Vitamin B12 deficiency was found statistically significant in univariate analysis, logistic regression analysis did not show significant association.

Conclusion: Use of RO processed drinking water was associated with Vitamin B12 deficiency. This being cross-sectional study, further longitudinal studies with large sample size and taking confounding factors into consideration, are required to establish this association.

Keywords: Dairy products, Demineralised water, Milk intake, Micronutrients, Vegetarian diet

MEDICAL JOURNAL ARMED FORCES INDIA 70 (2014) 377–379

Available online at www.sciencedirect.com

ScienceDirect

journal homepage: www.elsevier.com/locate/mjafi

Contemporary Issue

Demineralization of drinking water: Is it prudent?

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ARTICLE INFO

Article history:
Received 3 August 2013
Accepted 23 November 2013
Available online 6 March 2014

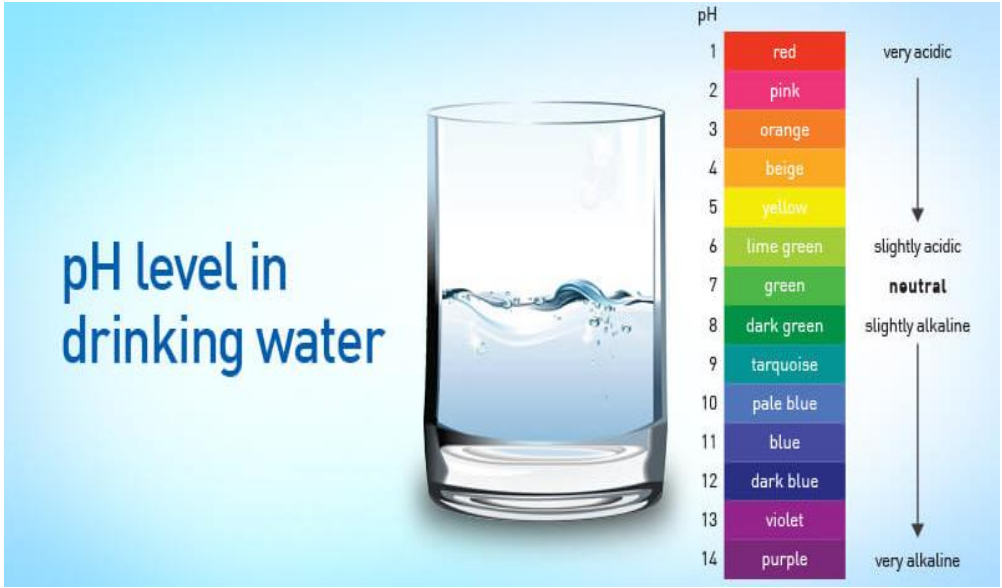
Keywords:
Water
Demineralization
Health

ABSTRACT

Water is the elixir of life. The requirement of water for very existence of life and preservation of health has driven man to devise methods for maintaining its purity and wholesomeness. The water can get contaminated, polluted and become a potential hazard to human health. Water in its purest form devoid of natural minerals can also be the other end of spectrum where health could be adversely affected. Limited availability of fresh water and increased requirements has led to an increased usage of personal, domestic and commercial methods of purification of water. Desalination of saline water where fresh water is in limited supply has led to development of the latest technology of reverse osmosis but is it going to be safe to use such demineralized water over a long duration needs to be debated and discussed.

Ph of the water

- The recommended pH of drinking water is between 6.5-8.5.
- Generally, most of the beverages, alcohol and other drinks are acidic in pH and often harm us by reducing our blood pH.
- Mildly alkaline water is good for health. But excessive alkalinity in water is also detrimental to health.



pH and Water, Available at, https://www.usgs.gov/special-topic/water-science-school/science/ph-and-water?qt-science_center_objects=0#qt-science_center_objects(accessed on 17 May 2020)

Temperature of water

- Chilling water often inhibits production of enzymes, reduces digestive strength and disturbs our health.
- It is always advisable to avoid chilling water to keep ourselves healthy.
- Normal temperature water is usually healthy, which will not interrupt any metabolic functions of our body.
- Consuming hot water regularly helps us strengthen our digestive system and immune system.

Minerals in water

- Generally following minerals are naturally found in water. Calcium, magnesium, potassium, sodium, bicarbonate, iron, zinc.
- Though minerals are helpful to the body in many ways, water we use must be analysed to check if these minerals are present in optimum level or not.
- Excess of any chemicals can be harmful to health.

Packaged drinking water

- Many plastic containers contain bisphenol A, or BPA. This chemical can enter into the water stored in the plastic containers and interfere with normal hormonal function of human body.

- Microplastics, tiny plastic particles, are another potential concern. Scientists have identified microplastics in packaged drinking water which can pose serious health risks if taken in excess quantity.

Quantity of water

- **Our blood, brain, and heart are almost 75 percent water, our lungs are 83 percent, and even our bones are almost one-third water.**

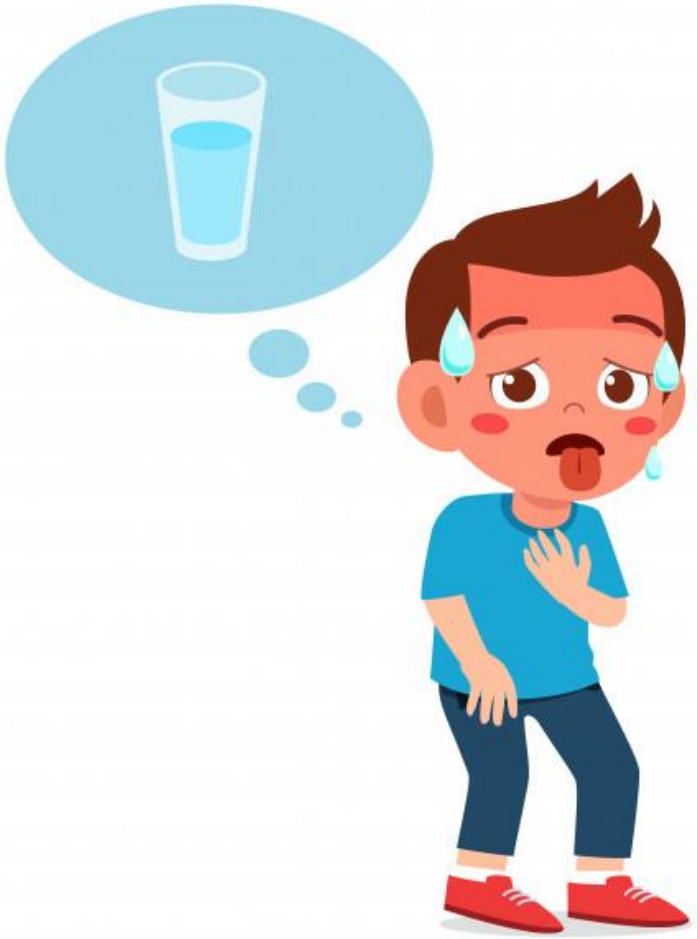
- Too little or too much of water is harmful to health.

Estimated Daily Requirement of Water

9 – 13 years	
Boys	2.4 L/day
Girls	2.1 L/day
14 – 18 years	
Boys	3.3 L/day
Girls	2.3 L/day
19 – 70+	
Man	3.7 L/day
Woman	2.7 L/day

Signs of drinking too little water

- Dry mouth
- Feeling thirsty
- The colour of urine is dark
- Dizzy feeling
- Headaches
- Feel tired or lethargic



Signs of excessive water usage

- Nausea
- Vomiting
- Diarrhea

Factors to consider while determining the right quantity of water intake:

- Body constitution:
- Physical activity:
- Season:

Water During Different Parts of Day & Night

- Drinking excess water during night time can cause discomfort during sleep due to frequent urination.
- During day time when sun is hot, body needs more hydration.
- There is a traditional practice of drinking water before sunrise to maintain good health.
- If we learn the art of communicating with our body, body will tell us when it needs water and how much it needs.

Preparation of water for consumption

Heating and boiling our drinking Water

Advantages of boiled hot water:

- Improves Immune System and Digestion
- Relieves nasal and throat congestion
- Reduce constipation and Stomach Pain

- Prevents Premature Aging
- Helps in weight loss
- Better Blood Circulation
- Can help reduce toxins

- Top 7 Benefits of Drinking Warm Water, Available at https://www.aimsindia.com/blog/benefits-of-drinking-warm-water/(accessed on 17 May 2020)
- Benefits of Drinking Hot Water, Available at https://www.healthline.com/health/benefits-of-drinking-hot-water(accessed on 17 May 2020)

Storing water in copper vessels

- This age-old practice referenced in ancient Indian texts is now supported by several scientific studies.
- Storing water in a copper vessel creates a natural purification process.
- It can kill all the microorganisms, moulds, fungi, algae and bacteria, present in the water that could be harmful to the body and make the water perfectly fit for drinking.

J HEALTH POPUL NUTR 2012 Mar;30(1):17-21
ISSN 1606-0997 | $ 5.00+0.20

Storing Drinking-water in Copper pots Kills Contaminating Diarrhoeagenic Bacteria

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ABSTRACT

Microbially-unsafe water is still a major concern in most developing countries. Although many water-purification methods exist, these are expensive and beyond the reach of many people, especially in rural areas. Ayurveda recommends the use of copper for storing drinking-water. Therefore, the objective of this study was to evaluate the effect of copper pot on microbially-contaminated drinking-water. The antibacterial effect of copper pot against important diarrhoeagenic bacteria, including *Vibrio cholerae* O1, *Shigella flexneri* 2a, enterotoxigenic *Escherichia coli*, enteropathogenic *E. coli*, *Salmonella enterica* Typhi, and *Salmonella* Paratyphi is reported. When drinking-water (pH 7.83±0.4; source: ground) was contaminated with 500 CFU/mL of the above bacteria and stored in copper pots for 16 hours at room temperature, no bacteria could be recovered on the culture medium. Recovery failed even after resuscitation in enrichment broth, followed by plating on selective media, indicating loss of culturability. This is the first report on the effect of copper on *S. flexneri* 2a, enteropathogenic *E. coli*, and *Salmonella* Paratyphi. After 16 hours, there was a slight increase in the pH of water from 7.83 to 7.93 in the copper pots while the other physicochemical parameters remained unchanged. Copper content (177±16 ppb) in water stored in copper pots was well within the permissible limits of the World Health Organization. Copper holds promise as a point-of-use solution for microbial purification of drinking-water, especially in developing countries.

Key words: Bacteria; Copper; Diarrhoea; Drinking-water; *Vibrio cholerae*; India

Adding Spices and herbs to water

- While boiling water it is useful to add some spices and herbs to purify and enhance the properties of water.
- Adding Cumin seeds (jeera) to water while boiling it helps in improving our digestive strength, reduces abdominal pain, removes mucous accumulated inn chest, reduces pain due to menstrual cycle.

- Ginger has been used for centuries as a remedy for treating cramps, nausea, flatulence and bad digestion. It improves blood circulation and has anti-inflaming and antivirus properties.

- Cinnamon regulates the blood sugar level and also helps in the fat reducing process. It is also a remedy against viruses which improves bad digestion as well.

- Clove helps with problems in organs included in the digestion process and successfully fights against parasites that are found in the human body

Consumption of water

- There are so many myths and controversies about consumption of water. People have questions about consuming water in relation with consumption of food.
- Many such doubts can be cleared with scientific understanding of principles of consumption of water.

Consumption of water

- Relation with food
- Taste buds
- Ushapana

- Drinking water just before eating food dilutes the digestive enzymes and kills hunger which decreases the consumption of food.

- Drinking water immediately after food also disturbs the digestion process and often hampers the fat metabolism and causes obesity.

- Drinking excessive water while eating food is also not healthy.

- Drinking small sips of water in limited quantity while eating food is advisable. It helps in better churning of food in our stomach.

- While it is a good habit if we get up before sun rise, most of us wakeup after sunrise.

- Drinking large amounts of water after sunrise often dilutes the enzymes and reduces our digestive strength.

Use of two different types of water alternatively:

Once a particular type of water has been drunk, a different kind of water should not be used till the first type of water has been digested well.

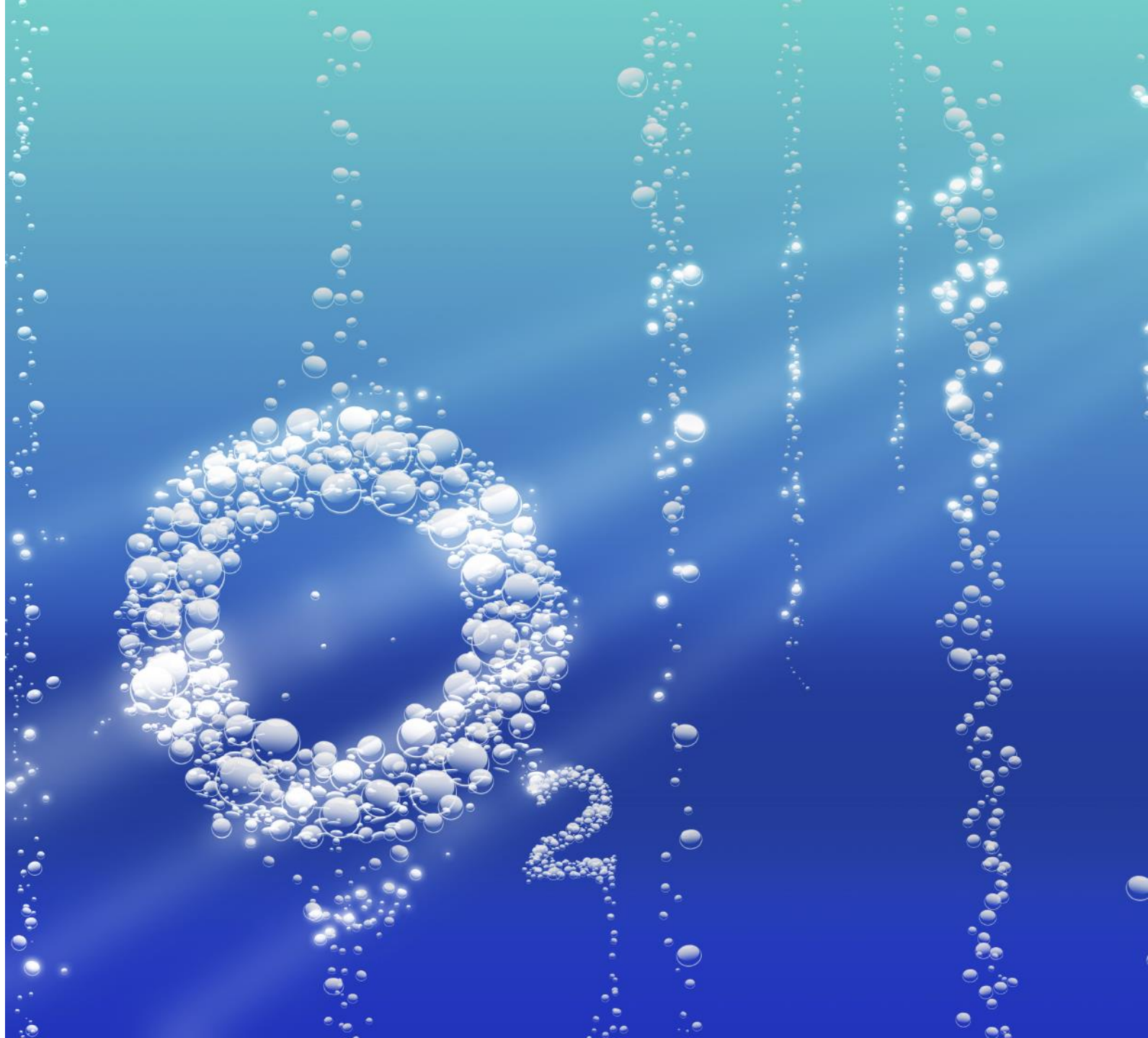
For example, if unheated water has been drunk, then boiled water should not be consumed right after it and vice versa.

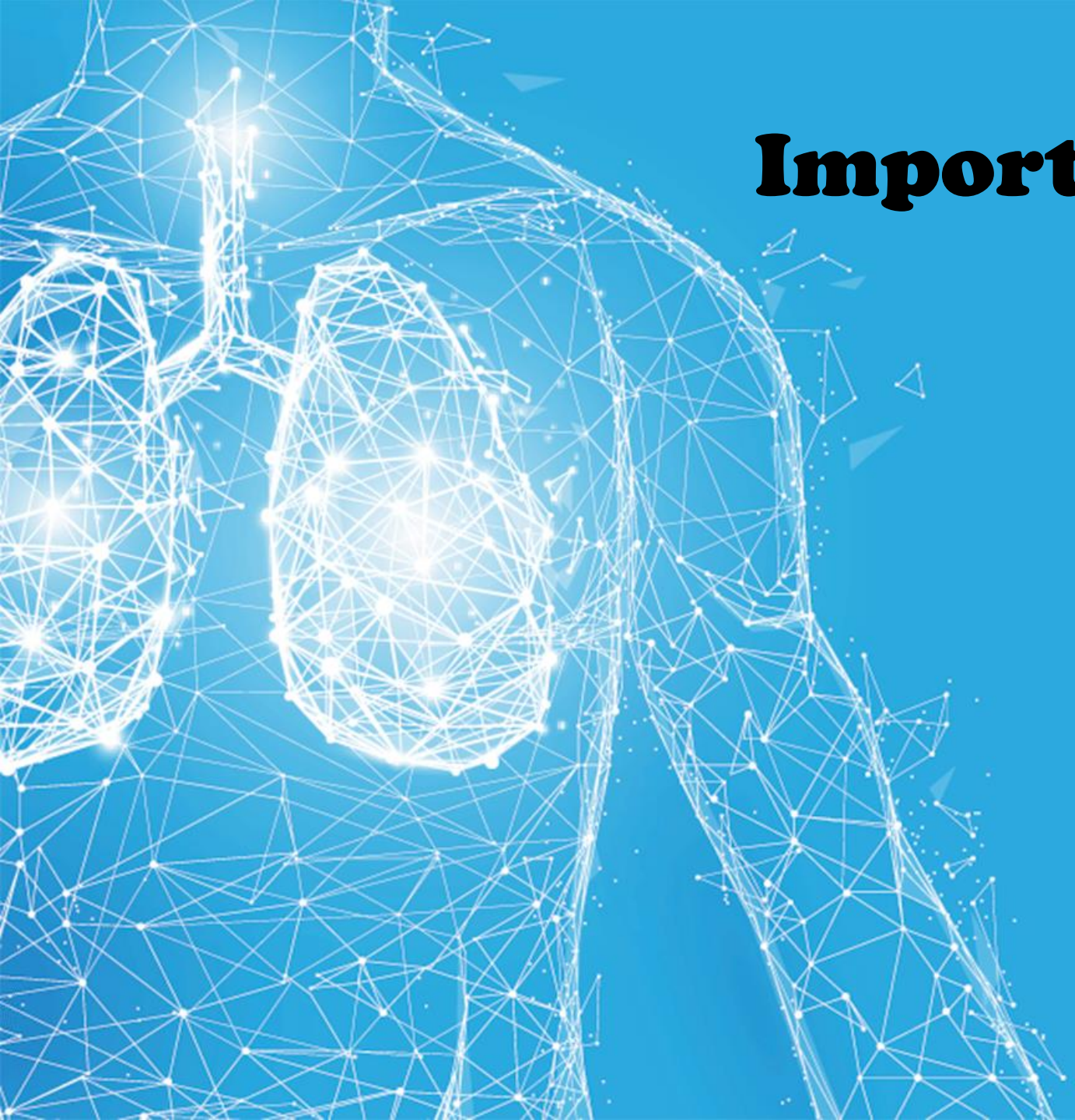
- Both over hydration and inadequate intake of water is dangerous for health.
- In general for a healthy individual 2-3 litre of water is required daily.
- While taking food one should always avoid excessive drinking of water because it disturbs the normal digestion of food.
- Alternate water may be of different source or boiled or un-boiled should also be avoided.
- Traditional method of disinfection and storage of water is good for health.

Air Intake

Air

- Quantity
- Quality
- Respiratory rate
- Breath regulation
- Exercise
- Climbing stairs





Importance of oxygen

- Brain
- Heart
- Muscles
- **Poor breathing habits**
- Nervous system becomes unbalanced
- Airways get tighter
- The blood vessels constrict
- Less energy gets produced
- To ensure perfect health we need to understand principles of intake of air

1. Oxygen is included on the World Health Organization (WHO) list of essential medicines.

2. Good indoor and outdoor air quality is fundamental to human well-being. On average, a person inhales about 14,000 litres of air every day, and the presence of contaminants in this air can adversely affect people's health.

1. WHO model list of essential medicines, World Health Organization, 16th ed. WHO; Geneva, Switzerland: available at 2009. http://www.who.int/selection_medicines/committees/expert/17/sixteenth_adult_list_en pdf 2009 .(accessed on 9 May
2. Why good air quality is important, Available at https://www.mfe.govt.nz/more/environmental-reporting/air/air-domain-report-2014/why-good-air-quality-important (accessed on 9 May 2020).
3. 2020)

1. WHO data shows that 9 out of 10 people breathe air containing high levels of pollutants and air pollution kills an estimated seven million people worldwide every year.
2. Air pollution is a major concern of new civilized world, which has a serious toxicological impact on human health and the environment.

1. Air Pollution, World Health Organization, Available at https://www.who.int/health-topics/air-pollution#tab=tab_1 (accessed on 07 May 2020)
2. Ghorani-Azam A, Riahi-Zanjani B, Balali-Mood M. Effects of air pollution on human health and practical measures for prevention in Iran. J Res Med Sci. 2016;21:65. Published 2016 Sep 1. doi:10.4103/1735-1995.189646

Breathing

1. Breathing is an automatic function of the body that is controlled by the respiratory centre of the brain.

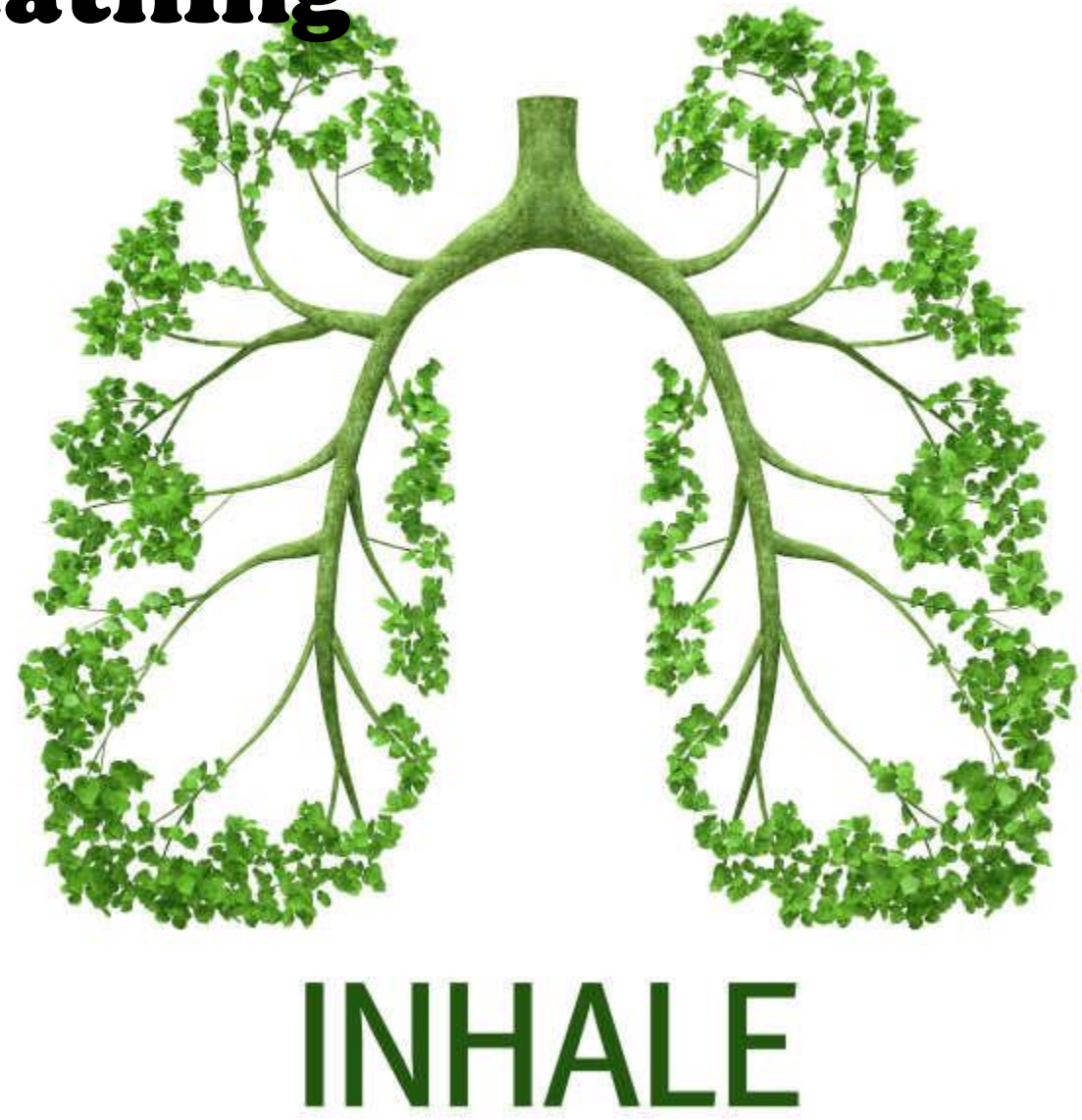
2. An average man who lives to age 80 may take more than 672 million breaths during his lifetime and between 17,280 and 23,040 breaths a day.

3. Though we cannot see the air we breath but it is crucial for our life and health.

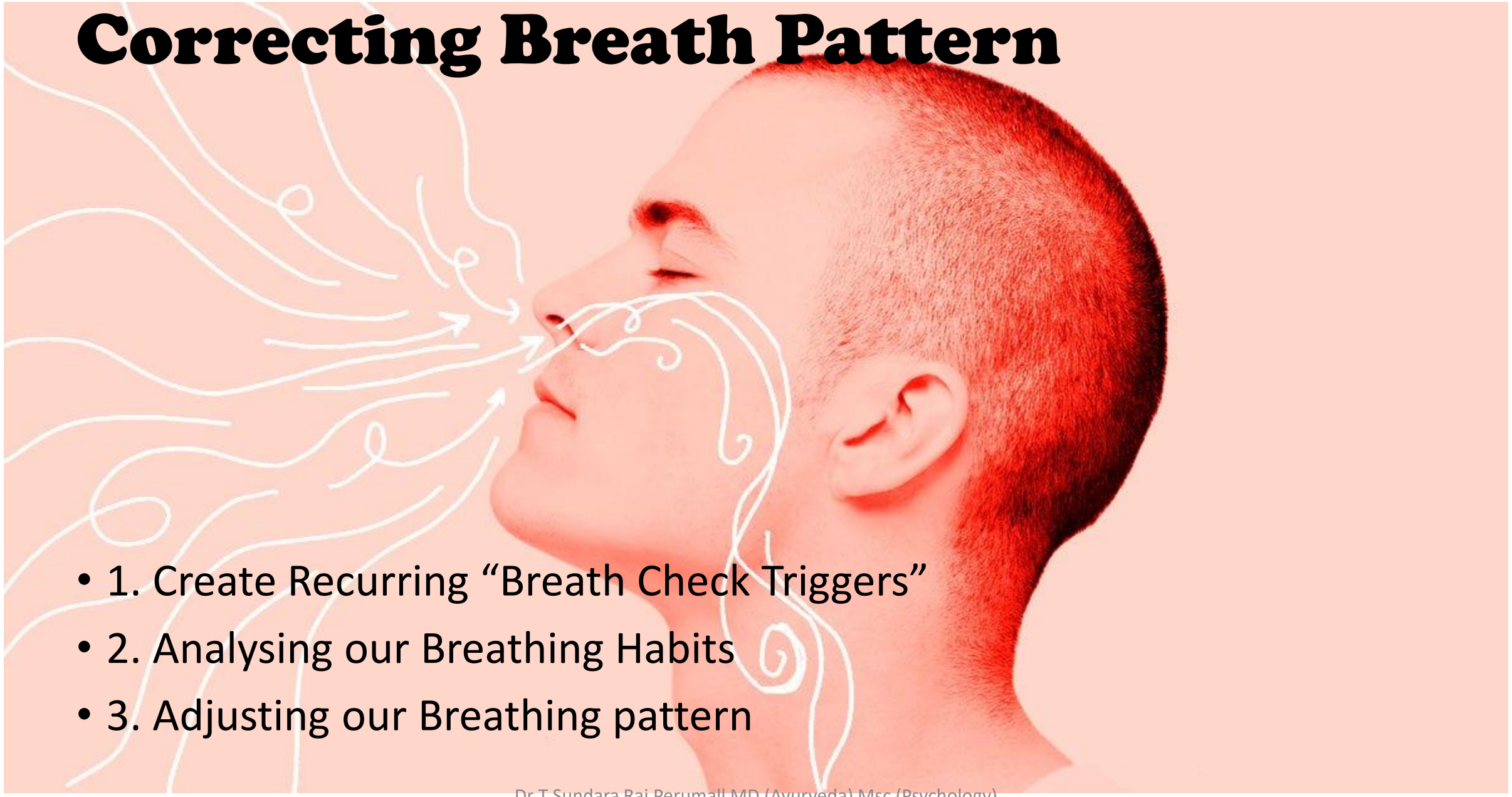
1. Breathing to reduce stress, Available at https://www.betterhealth.vic.gov.au/health/healthyliving/breathing-to-reduce-stress (accessed on 9 May 2020).
2. Breathing life into your lungs, Harvard Health Publishing, Harvard Medical School, Available at - https://www.health.harvard.edu/lung-health-and-disease/breathing-life-into-your-lungs
3. How Many Breaths Do You Take Each Day?, United States Environmental Protection Agency, Available at https://blog.epa.gov/2014/04/28/how-many-breaths-do-you-take-each-day/(accessed on 10 May 2020).

Guidelines of proper breathing

- 1. Breathe through the nose
- 2. Breathe with the diaphragm
- 3. Breathe relaxed
- 4. Breathe rhythmically
- 5. Breathe silently



Correcting Breath Pattern



- 1. Create Recurring “Breath Check Triggers”
- 2. Analysing our Breathing Habits
- 3. Adjusting our Breathing pattern

Sunlight Intake

Intake of sunlight

- **Benefits of exposure to sun light**:
- Protects against inflammation,
- boosts immunity,
- lowers high blood pressure,
- strengthens muscles,
- improves brain function,
- improves our mood and reduces depression
- improves sleep,
- strengthens our bones,
- heals skin disorders,
- promotes eye health
- even protects against cancer.


Thank You