

Immune Boosting Diet



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Need to Reboot Lifestyle and Eating Practices

- A healthy diet and exercise are key **in building immunity to fight off any disease.**
- Amid the COVID-19 lockdown, many of us do end up overindulging in junk food. That's where **mindful eating** can help.
- **Who is at risk?**
 - ✓ Older adults (age 65 and older).
 - ✓ Those with compromised immune systems.
 - ✓ Those with chronic disease (diabetes, heart disease, and lung disease).



Importance of Good Nutrition

- There is a direct relationship between diet, physical activity and health.
- Nutrition is a key player to physical, mental, and social well-being and for preventing disease.
- A sedentary lifestyle is usually associated with an increased risk for chronic disease, loss of movement and decreased immune health.



Your guide to healthy eating-hide

- You can include:-
 - ✓ two servings of any meats,
 - ✓ two servings of diary products,
 - ✓ three servings of vegetables,
 - ✓ two servings of fruits and
 - ✓ six servings of grains in daily diet.
 - ✓ Also, make sure to consume less of fats and sweets.



10 Ways to Boost Your Energy Instantly

1. Stay Hydrated

Being dehydrated can lead to fatigue, crankiness, and foginess



2. Walk Around the Block

Even a short walk can get your endorphins flowing



3. Spend time in the Sun

A few minutes in the light can brighten your day



4. Sip Tea

For energy without a crash



5. Eat More Mini Meals

Eating good food frequently keeps your energy up



6. Take a Tech Break

A few minutes away from the gadgets can give you a boost



5 Tips to Better Health



Drink More Water.

At Least 8 Glasses a Day.



Eat Fruit b4 Breakfast.

Jump Start Your Day with Great Nutrition.



Add Vegetables to Every Meal.

3-5 Servings a Day.



Walk for 30 Minutes Daily.

Start with 10 Minutes a Day.



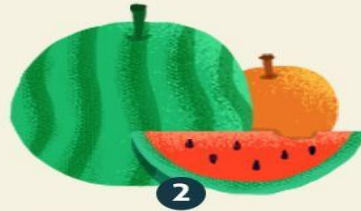
Explore Meatless Meals.

Try Vegetarian Meals from different Cultures.

Healthy Eating Tips



EAT MINDFULLY



REPLACE PACKAGED SNACKS WITH FRUIT



ADD VEGETABLES TO YOUR BREAKFAST



**REDUCE SUGAR INTAKE,
USE STEVIA INSTEAD**



**INCORPORATE PREBIOTICS
AND PROBIOTICS TO
YOUR DIET**



DON'T BUY SWEETS



MEAL-PREP



**EAT OUT
LESS OFTEN**



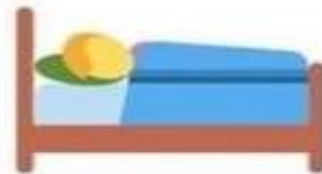
**DRINK ALCOHOL ON
WEEKENDS ONLY**

Supercharge Your Immunity

1. Have Anti-oxidants
2. Eat Pre-biotics foods
3. Exercise Regularly
4. Stay Hydrated
5. Sleep Enough
6. De-stress



EAT PROBIOTIC RICH FOODS



HYDRATE



STAY ACTIVE

1. Antioxidants: Powerful Molecules

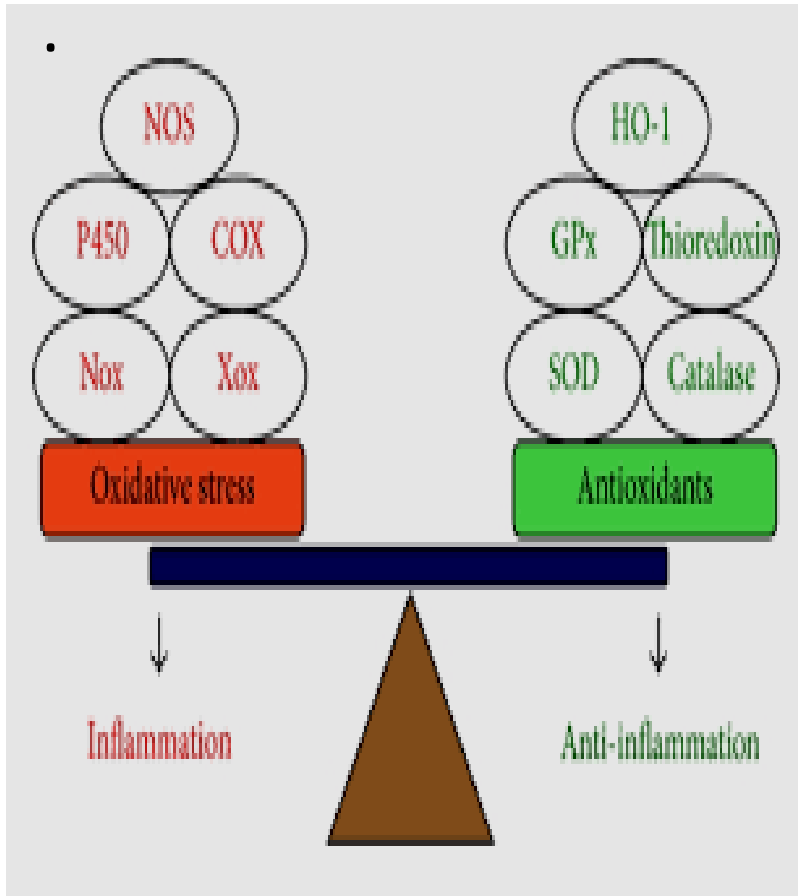


Have Antioxidants

- ❖ Antioxidants are man-made or natural substances that may prevent or delay some types of cell damage.
- ❖ Try to get as many fruits and vegetables with different colors when you plan your meals and go to the grocery store.
- ❖ An array of color in your diet will give you the widest range of beneficial antioxidants.



Anti-oxidant act as:-

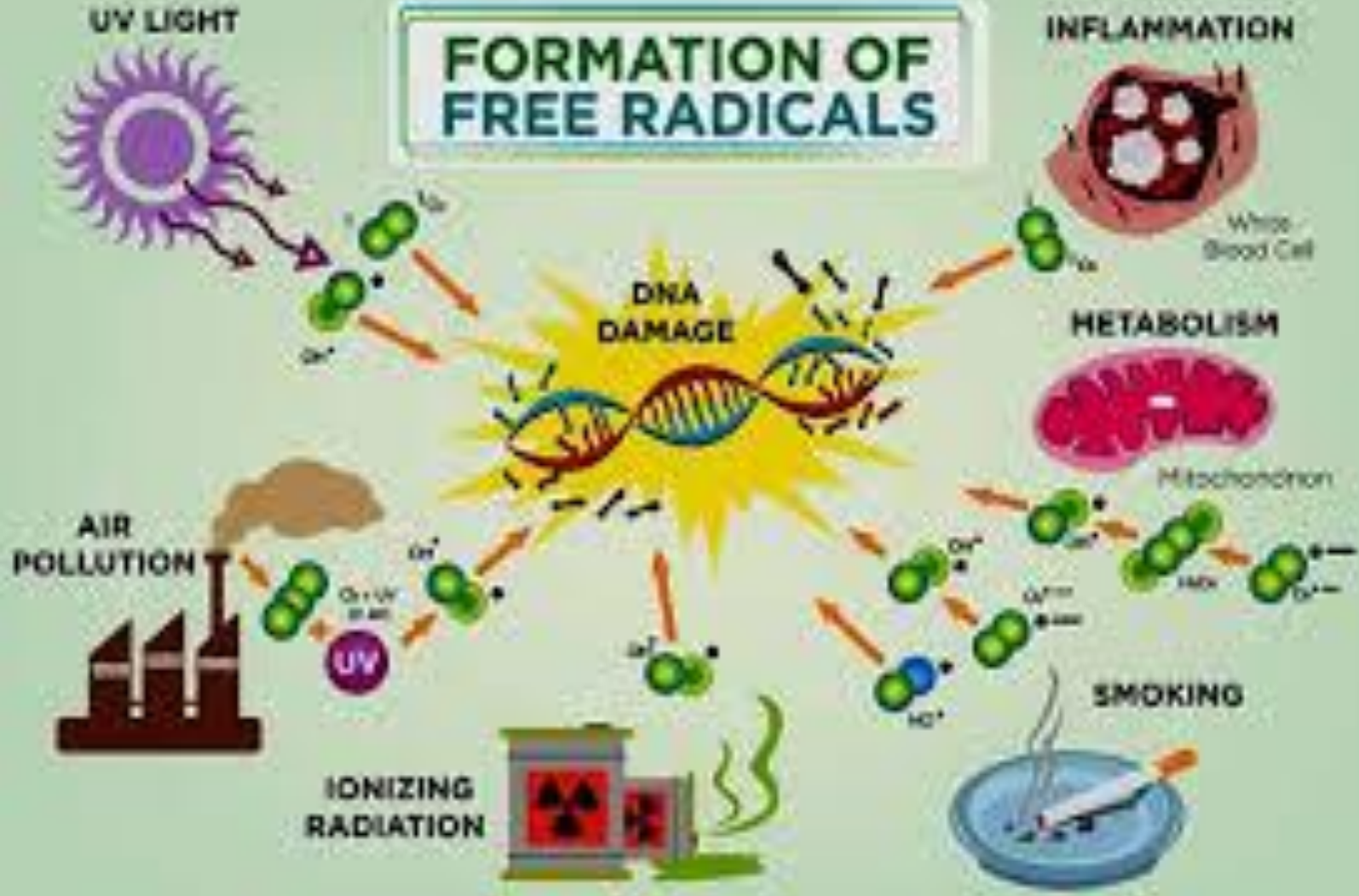


- radical scavenger
- hydrogen donor,
- electron donor
- peroxide decomposer,
- singlet O₂ quencher,
- enzyme inhibitor,
- synergist,
- metal-chelating agents

Free radicals

- ❖ Free radicals are waste substance produced by cells as the body processes food and reacts to the environment.
- ❖ If the body cannot process and remove free radicals efficiently, oxidative stress can result.
- ❖ This can harm cells and body function. Free radicals are also known as reactive oxygen species (ROS).

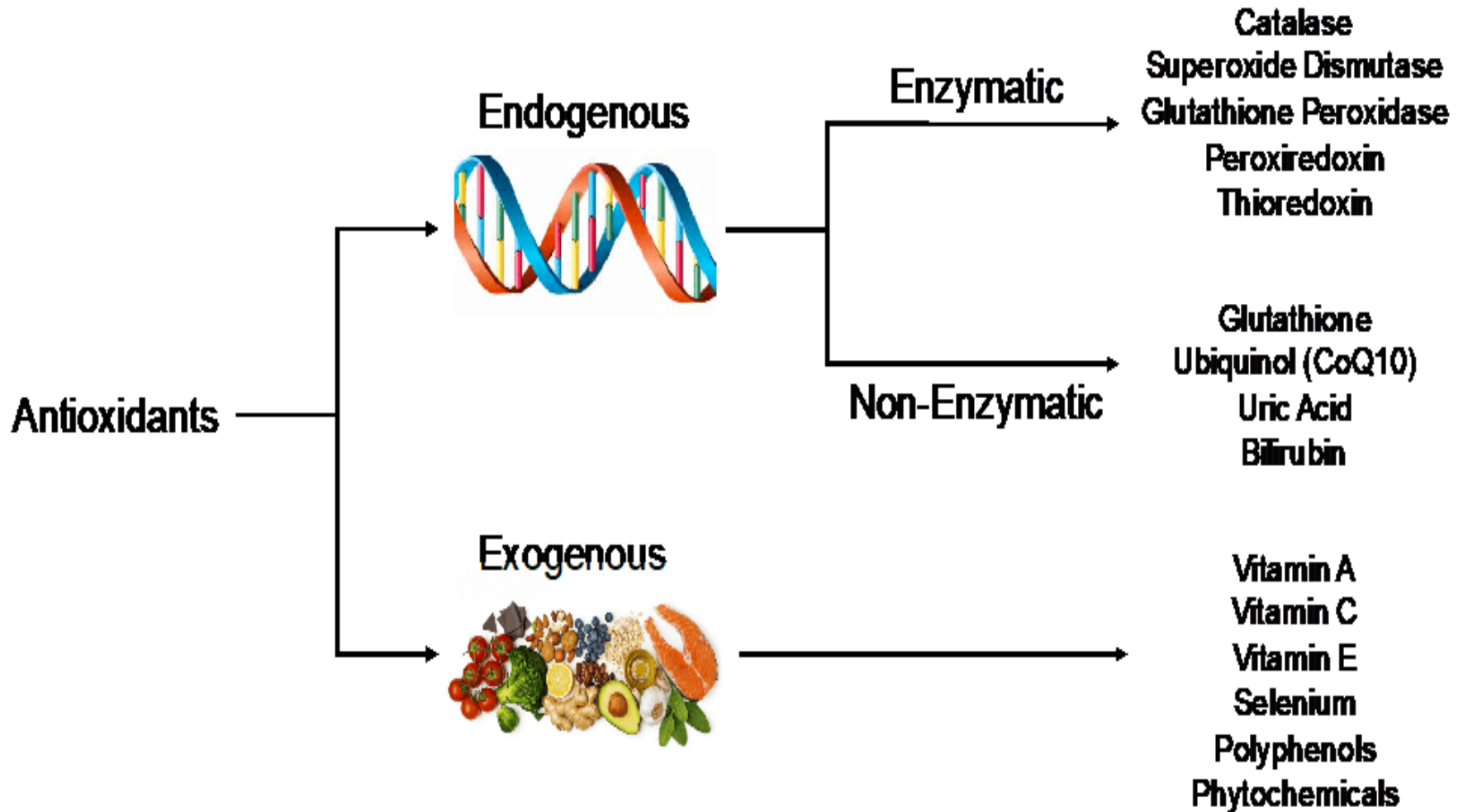
FORMATION OF FREE RADICALS



Oxidative Stress

- ❖ Factors that increase the production of free radicals in the body can be internal, such as inflammation and infection caused by **corona virus** or external like, pollution, UV exposure, and cigarette smoke.
- ❖ Oxidative stress has been linked to heart disease, cancer, arthritis, stroke, respiratory diseases.

Anti-oxidant Types



Exogenous Antioxidants

- ❖ The keyword here is variety.
- ❖ Try to get as many fruits and vegetables with different colors when you plan your meals and go to the grocery store.
- ❖ An array of color in your diet will give you the widest range of beneficial antioxidants.



Exogenous Natural Anti-oxidants

Exogenous antioxidants	Dietary sources
Vitamin C (ascorbic acid/ascorbate)	Bell peppers, strawberries, kiwi, Brussels sprouts, broccoli
Vitamin E (tocopherols, tocotrienols)	Vegetable oil and its derivatives (margarine, salad dressing), nuts, seeds
Carotenoids (α -carotene, β -carotene, zeaxanthin, lutein, lycopene, β -cryptoxanthin, etc.)	Orange and red vegetables and fruits (carrots, tomatoes, apricots, plums) and green leafy vegetables (spinach, kale)
Polyphenols (flavonols, flavanols, anthocyanins, isoflavones, phenolic acid)	Fruits (apples, berries, grapes), vegetables (celery, kale, onions), legumes (beans, soybeans), nuts, wine, tea, coffee, cocoa
Trace elements (selenium, zinc)	Seafood, meat, whole grains

Vitamins & Minerals as Antioxidants

- Studies have shown that fruits and vegetables provide nutrients—like beta-carotene, vitamin C, and vitamin E—that can boost immune function.
- Because many vegetables, fruits, and other plant-based foods are also rich in antioxidants, they help reduce oxidative stress.
- **Beta-Carotene, Vitamin C and E, Zinc, copper, manganese, iron, selenium act as anti-oxidants.**

Vitamin C

- Protects body from:-
 - ✓ infection
 - ✓ damage to body cells,
 - ✓ helping produce collagen and
 - ✓ helping in iron absorption.
- Sources are:-Citrus fruits, tomatoes, Broccoli, Brussels sprouts, sweet potato, cantaloupe, cauliflower, grapefruit, leafy greens, honeydew, kale, kiwi,, papaya, snow peas, strawberries, , and bell peppers.



Vitamin E

- ❖ Protects body from cell damage that can lead to cancer, heart disease and cataracts as we age.
- ❖ Vitamin E works with vitamin C to offer protection from some chronic diseases.
- ❖ Vitamin E sources are vegetable oils, wheat germ, whole-grains and fortified cereals, seeds, nuts and peanut butter.



Zinc- Anti-oxidant Mineral

- ❖ Zinc act as instrumental in the activity of about 100 enzymes in the body. Among its known anti-inflammatory powers is protection of the arteries.
- ❖ Zinc: Beef, poultry, oysters, shrimp, sesame seeds, pumpkinseeds, chickpeas, lentils, cashews, fortified cereals



Copper



- ❖ It act as a pro-oxidant (causes free radical damage) and an antioxidant.
- ❖ Copper is composed of a powerful antioxidant enzyme and ceruloplasmin, a protein responsible for transporting iron to your tissues.
- ❖ Not getting enough copper affects the levels of selenium, iron, catalase, and glutathione — all powerful antioxidants.
- ❖ Foods high in copper include: Oysters, Black beans, Soy protein powder, Granola, Tomato puree

Manganese

- ❖ Like copper, manganese is a powerful antioxidant.
- ❖ Manganese superoxide dismutase (MnSOD) is the main antioxidant enzyme in the mitochondria of every cell in the body.
- ❖ Foods highest in manganese are: Pecans Brown rice, Pineapple , Almonds , Pineapple juice

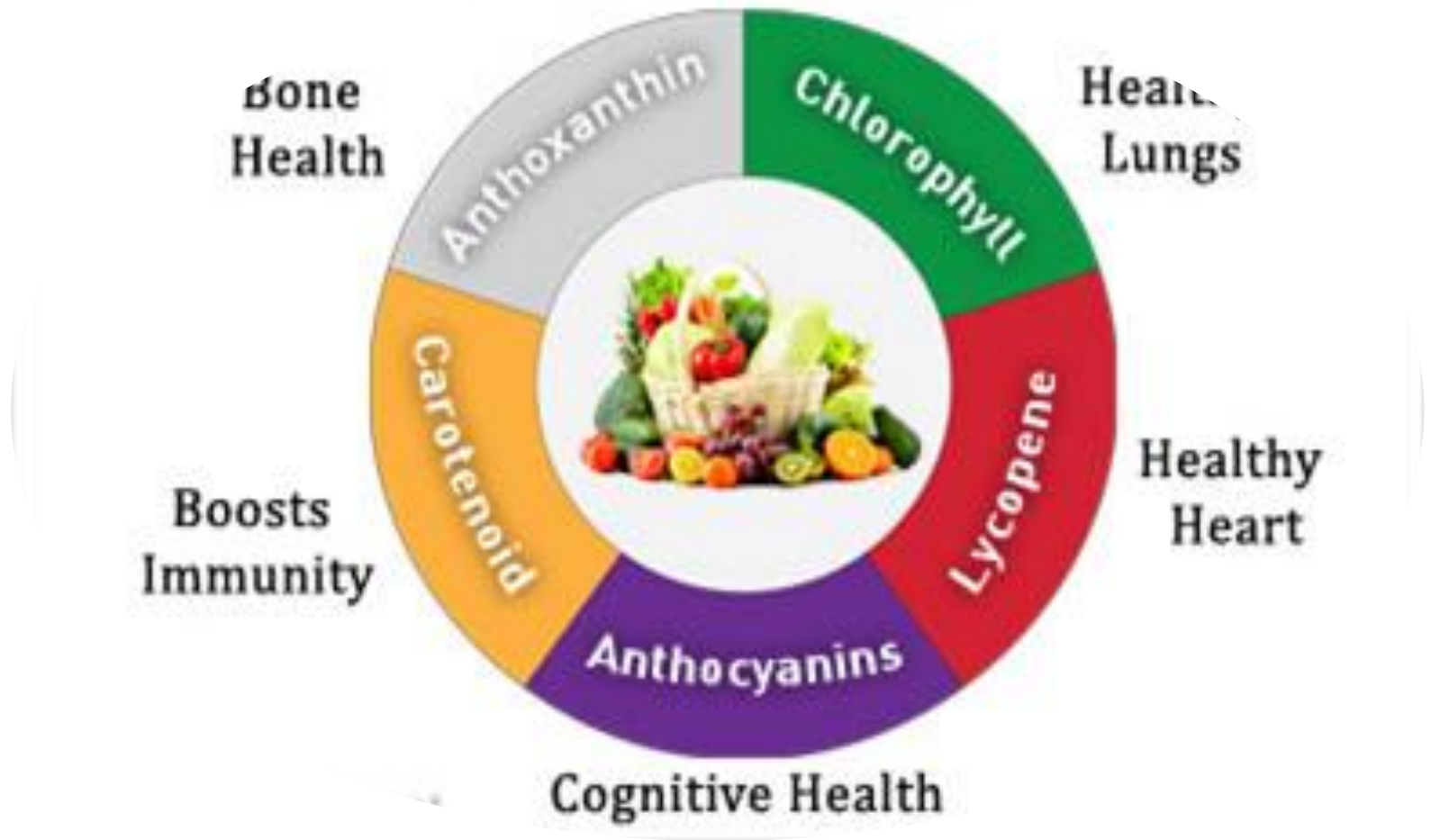


Iron



- This nutrient helps protect the cell membrane from damage (oxidation).
- It's found in two forms: iron connected to a special protein that helps with absorption (heme) and one without the attached protein (nonheme).
- Nonheme iron is found in plant foods and fortified foods, while meat, seafood, and poultry contain both nonheme and heme iron.
- Foods high in iron include: Oysters, White beans, Dark chocolate, Beef liver

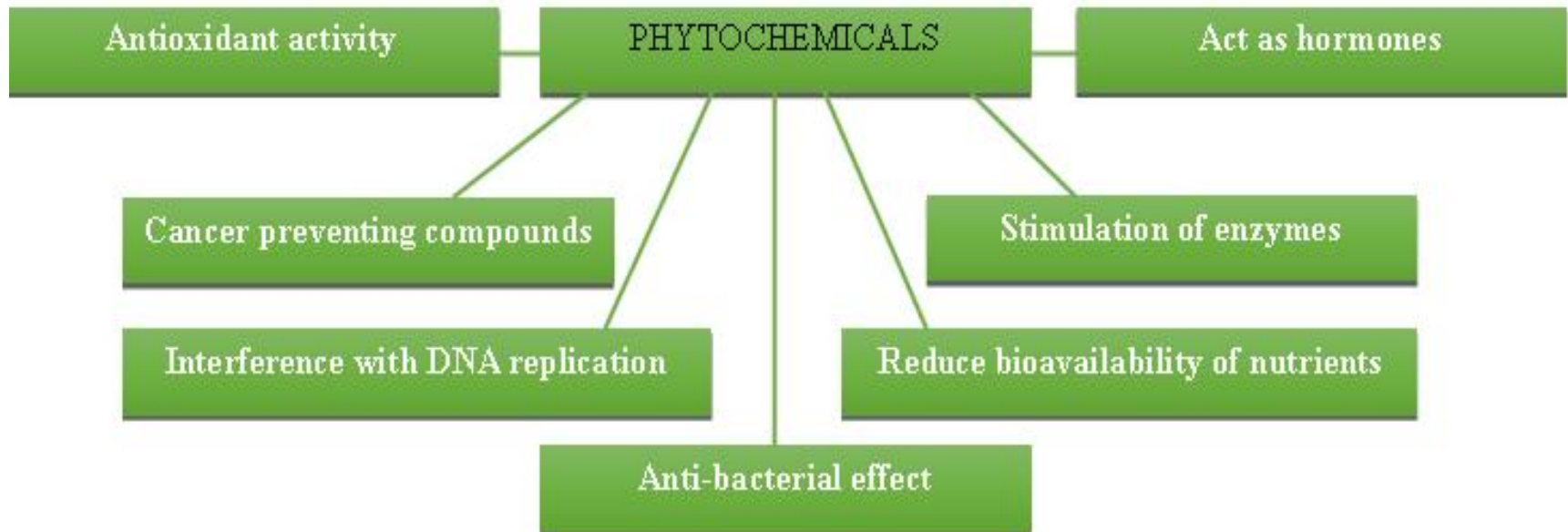
Phytonutrients



Phytonutrients

- ❖ These are chemical compounds found in plants, and they have a variety of possible health benefits for the body, including antioxidant activity.
- ❖ Flavonoids, flavones, catechins, polyphenols, and phytoestrogens are all types of antioxidants and phytonutrients, and they are all found in plant-based foods.
- ❖ Each antioxidant serves a different function and is not interchangeable with another. This is why it is important to have a varied diet.
- ❖ **Phenolic compounds:** Quercetin catechins resveratrol coumaric acid, anthocyanins.

Functions of Phytochemicals



Beta-carotene

- ❖ Among the 600 or more carotenoids in foods, lycopene and lutein are well-known leaders in the fight to reduce the damage from free radicals.
- ❖ Carotenoids may be effective in helping prevent certain cancers and may help decrease your risk of macular degeneration.
- ❖ *Carotenoids including beta-carotene and lycopene:* Apricots, asparagus, beets, broccoli, cantaloupe, carrots, bell peppers, kale, mangos, turnip and collard greens, oranges, peaches, pink grapefruit, pumpkin, winter squash, spinach, sweet potato, tangerines, tomatoes, and watermelon.

TABLE 1. Foods in a “Rainbow Diet”

Color	Bioactive Compound(s)	Foods
red	lycopene	tomatoes, watermelon
orange	beta-carotene	carrots, mangos
yellow	flavonoids	lemons, pineapple
green	sulforaphane	broccoli, arugula
blue	anthocyanins	blueberries, plums
purple	resveratrol	grapes, blackberries
white	allicin	garlic, onions

Endogenous Antioxidants (produces in the body)

Enzymes	Superoxide dismutase Catalase Glutathione peroxidase Paraoxanase Glutathione S-transferase Glutathione reductase Thioredoxin reductase Heme-oxygenase Aldehyde dehydrogenase 8-Oxoguanine glycosylase
Non-enzymes	Glutathione Lipoic acid Bilirubin Melatonin Ubiquinol Uric acid
Metal-binding proteins	Ferritin Lactoferrin Metallothionein

Does it Matter Whether the food is Cooked or Consumed Raw?

Depending on the particular food, cooking temperatures and methods can sometimes increase or decrease antioxidant levels. The important thing is that you eat antioxidant-rich foods, so go with your personal preference for preparation—as long as it's not deep frying!

Are added Antioxidants as Effective as those that occur Naturally?

- ❖ Yes, vitamins such as C, A and E can be added to foods – and they often are, such as in orange juice.
- ❖ There is no significant physiological difference between the added antioxidants and the ones occurring naturally in the food source. However, there's also no evidence that taking antioxidant dietary supplements work as well as the antioxidants found in food products.
- ❖ It's important not to overdo it on supplements because there can be too much of a good thing.

Ditch the carbs, choose protein or fiber-rich food

- Avoid snacking on potatoes and salted chips. Include pulses, eggs and meats in your diet.
- Ensure you are getting nutrition from all food groups, and avoid cutting out any food group to lose weight.
- Proteins and fiber-rich foods are essential as they help you feel satiated and this ensures that you do not overeat.



Reading Food Label

Sample label for macaroni and cheese

Start here

Limit these nutrients

Get enough of these nutrients

Quick guide to % DV:
• 5% or less is low
• 20% or more is high

Nutrition Facts

Serving Size 1 cup (228g)
Servings Per Container 2

Amount Per Serving

Calories 250 Calories from Fat 110

% Daily Value*

Total Fat 12g	18%
Saturated Fat 3g	15%
<i>Trans</i> Fat 1.5g	
Cholesterol 30mg	10%
Sodium 470 mg	20%
Total Carbohydrate 31g	10%
Dietary Fiber 0g	0%
Sugars 5g	
Protein 5g	
Vitamin A	4%
Vitamin C	2%
Calcium	20%
Iron	4%

* Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs:

	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

2. Pre-biotics

6 HEALTH BENEFITS OF PREBIOTICS



IMPROVED
DIGESTION



STRONGER
IMMUNE SYSTEM



BETTER NUTRIENT
ABSORPTION



SUSTAINABLE
WEIGHT LOSS



NATURAL
DETOXIFICATION



STRESS
SUPPORT

PREBIOTICS

Food to promote
growth of health
bacteria

Where are they found?

- 1 Banana
- 2 Onion
- 3 Artichoke
- 4 Garlic
- 5 Oatmeal
- 6 Honey
- 7 Asparagus

Focus!

- Focus on the 5 essential food groups for good health.
- Replace healthier foods in the diet
- Opt for water as your beverage of choice



Ayurveda's Immunity Boosting Measures for Self Care during COVID- 19

COVID-19

Ministry of AYUSH, India has recommended;-

- Drink warm water throughout the day.
- Include Haldi (Turmeric), Jeera (Cumin), Dhaniya (Coriander) and Lahsun (Garlic) in cooking.
- Take Chyavanprash 10gm (1tsf) in the morning (sugar free for Diabetics).
- Drink herbal tea / decoction (Kadha)
- Drink Golden Milk (milk with haldi) before bed
- Practice Yogasana, Pranayama and meditation for at least 30 min. daily

3. Exercise

- **Exercise regularly**
 - ✓ Stay active by doing daily chores and having an exercise routine.
 - ✓ Mix it up with stretches, walking and yoga to help you stay fit and in shape.
- **Make time to relax**
 - ✓ stay connected with the ones you love as its a key to mental health and well-being.
 - ✓ Make time for entertainment to unwind.



Benefits of Exercise:

- **Stress and anxiety relief:** - Exercising releases serotonin and endorphins which can help improve mood, reduce the risk of depression and cognitive decline, and delay onset of dementia.
- **Immune support**
- **Weight management**
- **Reduces health risks and prevents diseases:-**Bone, muscles, balance, and flexibility:

Benefits of exercise

Combats health conditions and diseases



Clearer thinking



Improves mood



Controls weight



Promotes better sleep



Increases stamina and strength



Boosts energy



Prevents and treats some mental health conditions



ideas for physical activity during self-isolation



dancing



playing with your children



cleaning



gardening



if permitted, go for a short walk, maintaining social distancing



online exercise classes



add more activity to your workday (e.g. stretch at your desk, stand up for calls)

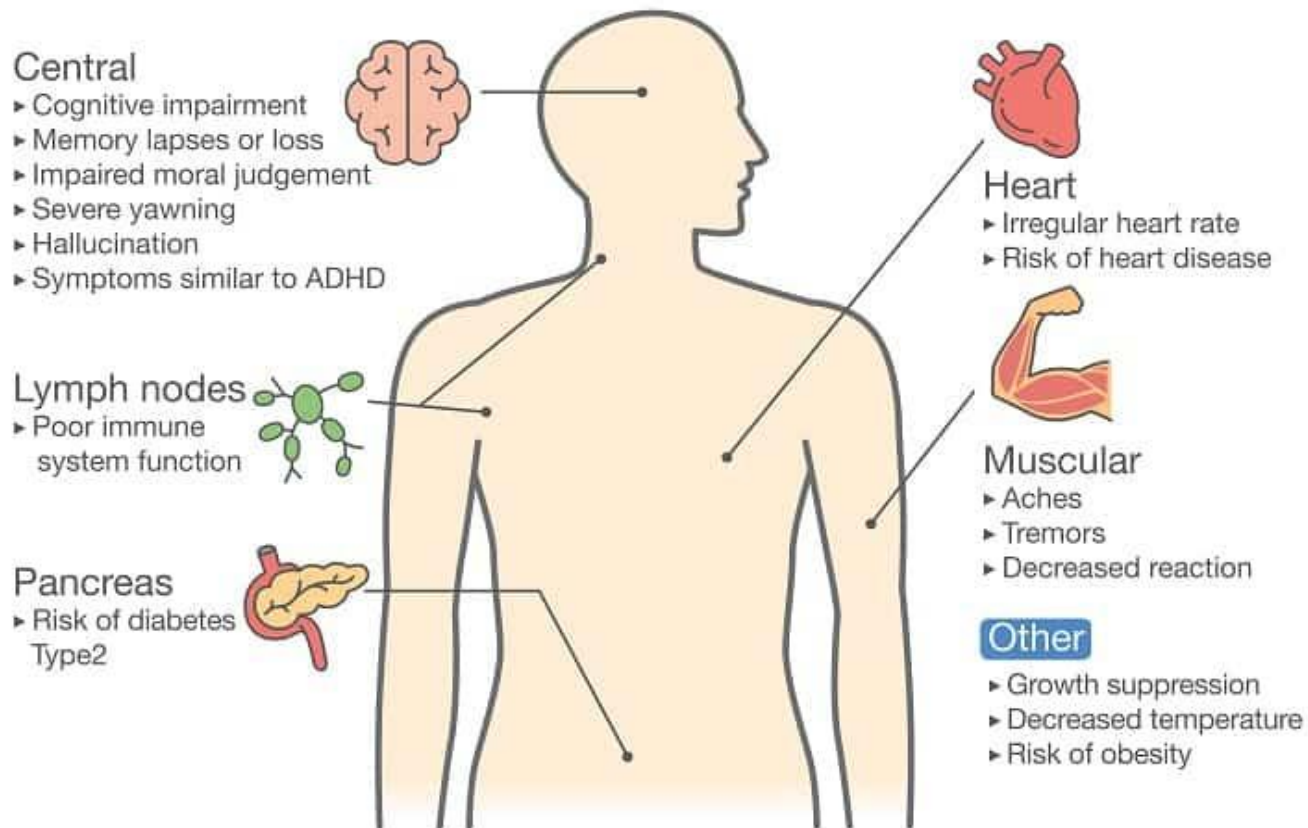
4. Stay hydrated

- Good hydration is crucial for optimal health.
- Drinking water instead of sugar-sweetened beverages is a simple way to limit intake of sugar and excess calories.



5. Sleep Enough

Effects of Sleep Deprivation



Benefits of Sleep



6. De-Stress Yourself



- ✓ Meditation
- ✓ Music Therapy
- ✓ Dance Therapy
- ✓ Aroma Therapy
- ✓ Humour
- ✓ Sleep
- ✓ Pet Rearing



Re-energise Yourself



Re-boot Yourself

