

# BECOME YOUR OWN PROTECTOR!

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# CARE FOR YOUR PROTECTORS

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*“We are rewarded with a healthy body and mind, when we find the purpose of our life and work towards its fulfilment. That is the time when each and every cells of our body dances in harmony with nature, which brings health”.* Author

We are born fighters. We are born with an army of protectors who take care of us, all throughout our life. Without the warrior cells we cannot survive for a minute. From the time, we are born until death our body comes across millions of adverse conditions and events, which could have eliminated us from this planet. Fortunately, God has provided us with proper instruments to fight against all odds. Nature has provided us the tools to fight. It is we, who have to learn to use it to our own advantage. Our body comes with natural barriers, which provides protection from the external offenders. Someone has rightly said, “Good fences make good neighbours”. Our skin is the biggest first line defence against many pathogens. Other exposed areas of our body, where there are no skin lining, our body secretion like saliva, gastrointestinal fluids, lachrymal discharges, vaginal secretions, nasal mucosal discharge etc. are nature’s gift to us for preventing pathogens to enter and protects us from harmful

chemicals and organisms. Modern living style has totally changed our natural environment and forced us to live in highly polluted atmosphere. Our body is not tuned to face so much pollution but does its assigned job to protect us. When our protectors fail to protect us, diseases step into our life. It is our duty to keep this barrier intact for a healthy life. We have a complete and independent system in our body to protect us from different type of invaders known as immune system. Immunity is defined as the ability of the body to defend itself from infections, diseases and other unwanted biological invasion. We all have to encourage our immune system to stay healthy and powerful, so that we can live a healthy life. It is our umbrella, which will save us from getting wet from the rain of many diseases. We are born with a certain degree of defence mechanism, coded in the genes of our primitive bone marrow cells known as innate immunity. These are our white blood corpuscles (WBC), macrophages that initiate inflammatory reaction to eliminate foreign invaders. In addition, we passively get mother's immunity for some time after birth. Different organs, like bone marrow, thymus, spleen, lymph nodes, produce immune cells of our body. Different cell types like phagocytes, which includes granulocytes, macrophages, dendritic cells and lymphocytes like T and B cells work together to activate the immune system. When we grow, we come across many more foreign substances, bacteria, viruses and toxins, which are new to our body. These invaders force our body to build defence against

them, known as acquired or adaptive immunity. Here the key role is played by lymphocytes and is highly specific. Vaccine induced immunity is an example of acquired immunity. Adaptive immunity can be active or passive depending on whether these are generated by the cells or actively transferred from other individual. Our microbiota is the next powerful protector we have, as it is responsible for formation of 90% of our immune cells. As we have discussed earlier, our friendly microbes residing in our body outnumber our normal cells. Gut microbiome regulates our natural immune response and determines the risk of chronic illnesses. Making sure that our bacterial flora intact is important for healthy functioning of the immune system. Eating naturally fermented foods, avoiding antibacterial soap and avoiding unnecessary antibiotics can improve our microbiota and thus improves our immunity. Antioxidants are molecules that protect us from free radicals, which cause oxidation reaction in our body, by neutralising them. Free radicals are simple molecules with one or more unpaired electrons, and are highly unstable. To become stable, the free radicals steal electrons from another molecule, making it unstable and can cause permanent damage to it. Oxygen is the life giving molecules without which we cannot survive. Energy is generated when the food we eat is oxidised by oxygen we inhale. As oxidation reaction causes rusting of iron and damage it, an unwelcome oxidation reaction can cause damage to our cells including our DNA and proteins. Antioxidants

always donate an electron to the free radicals, stabilize it and stop the chain reaction. Every moment we generate millions of free radicals but most of them get neutralized by the antioxidants produced in our body and from the food, we ingest. Unfortunately, because of our changed lifestyle and food habits, the proportion of free radicals generated is very high as compared to the antioxidants present in our body. Stress, fast food, alcohol, pollution, smoking, emotional distress, drugs, infections, injuries, radiation are few of the factors responsible for increased free radicals formation leading to lifestyle diseases including cancer, obesity, diabetes, hypertension, heart attack. Fruits, green leafy vegetables, Garlic, Spinach, Beet, Orange, Strawberry, Cherry, Onion, Corn Plum, eggs, nuts are few which contain a very high concentration of antioxidants and help us to lead a healthy life. Tea both black and green varieties, have much higher antioxidants properties. Brewing both varieties of tea with boiling water, 84% of the antioxidant properties are activated within five minutes. Rest 13% are extracted in the next five minutes. Therefore, to reap the benefits of antioxidant properties of tea, it has to be brewed for 10 minutes. Some of the natural antioxidants are Vitamin A present in the form of Retinoic acid, Carotenoids present in our colourful fruits and vegetables. Beta Carotene, lutein, Lycopene, Zeaxanthin, Alpha carotene and Cryptoxanthin, Vitamin C, Vitamin E, are few powerful antioxidants present in different coloured vegetables and fruits. Few minerals like

selenium, zinc and hormones like melatonin are frequently being used for the treatment of chronic diseases to reduce the damage caused by oxidation reactions in our body. "Care for your health" recognizes stress as biggest threats to our immune system. Dr. Bruce Lipton in his book 'Biology of belief' mentioned that our survival mechanism is mainly divided into two categories: growth and protection. Though we need both the mechanism for survival, they cannot operate optimally at the same time. When we are in stress, automatically we switch into the protection mode and our sympathetic nervous system (SNS) prepares our body for vigorous activities. Our body releases stress hormones like, epinephrine, nor epinephrine and cortisol and prepares itself for a fight- or- flight response. Our heart rate increases, we breathe faster and our peripheral circulation increases to support our muscles. At the same time our central circulation decreases, digestion become slow and our immune response is compromised. When the acute stress phase is over, our body tries to return to normalcy by activating the Parasympathetic Nervous System (PNS). This put our body into 'rest and recovery' or in 'growth' mode'. Our heart rate comes down to normalcy, breathing becomes slow and deep, Care for Your Health 118 digestion improves due to increased blood flow to internal organs and our immune response reactivate. When we are in the protection for a longer period, our growth mechanism severely gets compromised and our immune response becomes slow. This

immunosuppressive nature of stress makes us prone to diseases. Managing stress properly, strengthen our immunity. Meditation, affirmations, regular exercise and adequate sleep reduce stress and help our protector cells to grow.