

Types and levels of immune system

There are two distinct types of immune system, innate and acquired immune systems.

The innate or natural defense system, otherwise known as *nonspecific immune system*, is inherent and primordial to every organism because it encompasses the evolutionary track of every living organisms, species, groups/subgroups and individuals. In fact, it is the immunity the organism is born with. As an evolutionary track, innate immune system is the disposition that enables one group of people to resist or survive a particular disease or in a particular environment while another group is susceptible to the same disease. Even in a family, it is common to see one member of a family resist a particular disease while others are susceptible to the same disease. For example, in malaria endemic region, it is possible to see a family member rarely symptomatic, while other family members are constantly susceptible to malaria. The reason for the discrepancies, even among people of the same genetic make ups, has been explained from biological (genetic combination theory) and psychosocial (trauma and stress, nutrition and environment) perspectives (Hurlbert, 1999).

The second type of immune system is acquired or adapted immune system, otherwise referred to as specific antigens. This type of immune defense system, unlike innate immune, is acquired after birth and it can be acquired either in active ways or in passive ways. The following explains the ways specific antigens can be categorized:

Antigens	Active	Passive
Naturally Acquired Immunity	After surviving an attack, the body converts the substances of the dead pathogen into antigen against related pathogens.	It is well established that mother's breast milk is a great source of antibodies for infants and subsequently adults. Even the womb (fetus), the unborn depends its mother's antibodies for defense against invading pathogen. So, whether this antigen is acquired in one's mother's womb or through her breast milk, it is evident that the unborn and infant can only resist the pathogens resisted by its mother and susceptible to pathogens its mother is susceptible to.
Artificially Acquired Immunity	This is acquired when one is actively vaccinated with an antigen that confers immunity to specific pathogens.	Passive artificial acquired immunity occurs when serum highly enriched in antibodies against varied number of immunosuppressive agent and obtained from multiple immunosufficient hosts, mixed (Pooled) together and injected into vulnerable individual hosts. Example is the gama-globulin immune replacement therapy, a solution of gamma globulin synthetically prepared from human blood and injected in human as passive immunization against pathogens like measles, German measles, hepatitis A, and other infections.