

## ***The summary of studies achievements on aging cell-Mdiated Immunity system by cell proliferation tests***

### **abstract**

*One of the first identified age-associated functional changes in immune response was decreased DTH responses. In fact the DTH response is an example of a T.h response mediated primarily through th-1-type cytokines although many events are required before proliferation, assessment of lymphocyte proliferation often has been used as an indicator of the cell-mediated immune potential of an individual. Therefore, many studies have utilized the proliferative response to assess age-associated changes in T-cell response.*

*A decreased ability of PBMCs to proliferate in response to T-cell stimuli is among the most consistent age-associated of the immune system. It has been reported that 40 percent of individuals over age 70 demonstrate decreased reactivity to skin test panel regardless of their overall health status.*

*A decreased DTH response can result from change in the initial activation of T cells, a shift in cytokine production by the activated cells, or altered reactivity by macrophages.*

*Also, multiple age-associated changes have been observed in vitro. (respond to antigens: dinitrochlorobenzene, streptokinase or streptodornase) including decreased proliferative responses, modified activation signals, and altered cytokine production profiles.*

*In addition numerous studies over the last two decades have examined whether phenotypic changes in the T-cell compartment accompany human aging and it is generally accepted that healthy aging is accompanied by a slight decrease in circulating lymphocytes, number of total T cells. In end, aging is accompanied by many modifications of immune reactivity, with the most significant changes being observed in the T-cell compartment. Therefore, these changes merit close attention by health care professionals.*

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**Key words:** aging, cell-mediated immunity / T cell & aging