The main goal of this study was to establish how the inflammation caused by infection with two different Salmonella enterica serotypes, S. Typhimurium and S. Enteritidis, may lead to the predisposition to allergy as measured by total IgE level in the blood. Infection by S. Typhimurium did not affect the systemic IgE concentration while in S. Enteritidis-infected patients there was a significant 3.5-fold increase. This effect was especially profound in patients >4 years old, with up to the 8-fold increase above the norm. The degree of dysbiosis in these two infections measured with the comparative counts of cultivated bacteria showed an inverse relationship with the IgE concentration. Earlier we reported the elevated level of IL-17 in patients infected by S. Enteritidis. In the current study a significant correlation was found between the concentrations of IL-17 and IgE suggesting a possible role played by this cytokine in triggering the production of IgE in response to S. Enteritidis infection.