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Diphtheria immunity status in Egypt

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The aim of this study was to determine immune status to corynebacterium diphtheria by screening for protective antibodies in a sample of Egyptian population. The study population consisted of 709 healthy subjects aged from 2 months to 105 years, inhabitants of 6 regions of Egypt. The study utilized Enzyme linked immunosorbent assay (ELISA) to measure serum levels IgG antibodies reactive with diphtheria toxoid. Levels of diphtheria toxoid antibody > or = 0.1 IU/ ml were defined as immune/protected, 23.9 % of the population were found to be susceptible to diphtheria (IgG level < 0.01 IU/ml), 43% had basic protection (0.01-0.09 IU/ml), and 33.1% were fully protected (0.1 IU/ml). The results revealed that serum levels of antitoxin antibodies decreased in old ages (< 60 y) with the females being more susceptible then males. These results recommend a booster immunization for the susceptible age groups.