

# 4 Stages of Testing for Primary Immunodeficiency

- 1**
  - History and physical examination, height and weight
  - CBC and differential
  - Quantitative Immunoglobulin levels IgG, IgM, IgA (related to age)
- 2**
  - Specific antibody responses (tetanus, diphtheria)
  - Response to pneumococcal vaccine (pre/post) (for ages 3 and up)
  - IgG subclass analysis
- 3**
  - Candida and Tetanus skin tests
  - Lymphocyte surface markers CD3/CD4/CD8/CD19/CD16/CD56
  - Mononuclear lymphocyte proliferation studies (using mitogen and antigen stimulation)
  - Neutrophil oxidation burst (if indicated)
- 4**
  - Complement screening CH50, C3, C4
  - Enzyme measurements (adenosine deaminase, purine nucleoside phosphorylase)
  - Phagocyte studies (surface glycoproteins, mobility, phagocytosis)
  - NK cytotoxicity studies
  - Further complement studies AH50
  - Neo antigen to test antibody production
  - Other surface/cytoplasmic molecules
  - Cytokine receptor studies
  - Family/genetic studies

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These recommended immunologic tests reflect a consensus of the Jeffrey Modell Foundation Medical Advisory Board. Consultation with Primary Immunodeficiency experts is strongly suggested. © 2009 Jeffrey Modell Foundation  
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