CONCEPT: PRIMARY & SECONDARY RESPONSE OF ADAPTIVE IMMUNITY

●Memory B & T cells make a *secondary* adaptive immune response *faster* & _____ *effective* than a *primary* response:

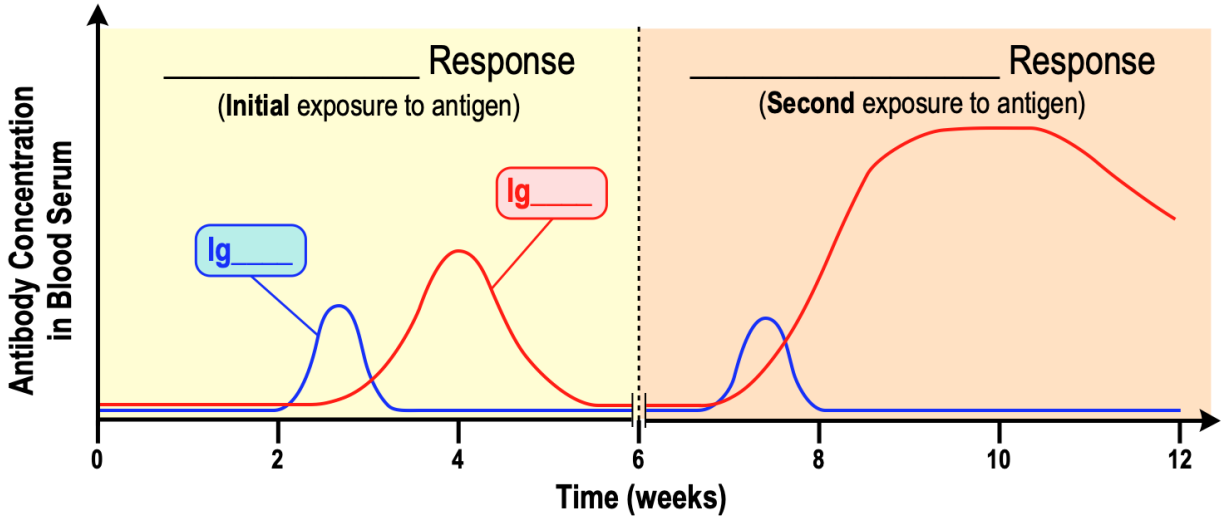
1) Primary Immune Response: a *slower* & *weaker* response upon _____ exposure to an antigen.

□ Ex. takes _____ time to produce a relatively _____ number of antibodies (IgM & IgG).

2) Secondary Immune Response: a *faster* & *stronger* response upon _____ exposure to antigen.

□ Ex. takes _____ time to produce a relatively _____ number of IgG & only *some* IgM.

□ Associated with _____ B & T cells of adaptive immunity.



PRACTICE: During an immune response, the latent or lag period is the number of days between the initial infection of the host and antibody production used to fight the infection. Which type of immune response will have the longer latent period?

a) Primary Immune Response. b) Secondary Immune Response.

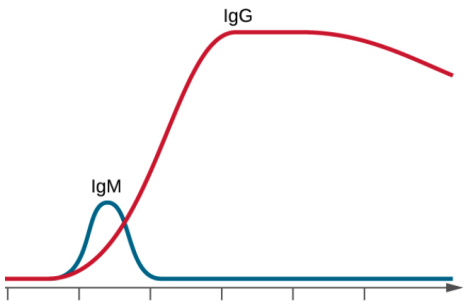
PRACTICE: Which antibody class rises to its highest concentration during a secondary response?

a) IgA. b) IgE. c) IgM. d) IgG.

PRACTICE: Does the graph correspond with a primary or secondary infection?

a) Primary Immune Response.

b) Secondary Immune Response.



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PRACTICE: People that are immune to a certain disease have _____ class antibodies against the disease years later.

a) IgA.
b) IgG.
c) IgM.
d) IgE.

PRACTICE: How long after initiation of a primary response do significant amounts of antibody appear in the blood?

a) One day
b) 10-14 days
c) 4 weeks
d) 6 months

PRACTICE: If you draw a blood sample from a patient to determine whether he or she has a herpes simplex infection, and the patient displays a large amount of IgG against the virus but low levels of IgM, what do you conclude?

a) The patient is newly infected.
b) The patient has had the infection for a while.
c) The patient is not infected.
d) It is impossible to draw conclusions.

PRACTICE: Put the following steps in the correct sequence to elicit an antibody response:

(1) T_H cell recognizes B cell.
(2) APC contacts antigen.
(3) Antigen fragment displayed on surface of APC.
(4) T_H recognizes antigen on APC is immunogenic.
(5) B cell proliferates.

a) 1, 2, 3, 4, 5.
b) 5, 4, 3, 2, 1.
c) 3, 4, 5, 1, 2.
d) 2, 3, 4, 1, 5.
e) 4, 5, 3, 1, 2.