

# *List of Immunoglobulins*

## *IgA*

*-Dimer.*

*-present in breast milk in highest amount.*

*(IgG and IgM are also present in colostrum)*

*-in later life, present in tears, and in mucous membranes - in much higher concentration than all the others combined.*

## *IgM*

*-Pentamer. 'J-chain' links the 5 units.*

*-first to be synthesized in body in response to an antigen.*

*-phylogenetically most ancient.*

*-also the first to be expressed in fetus (20 weeks).*

*-largest immunoglobulin.*

*-produced in spleen.*

*All monomers:*

## *IgD*

- can coexist with IgM on surface of B-cells.*
- acts as an activator of B-cells.*
- present in chondrichthyes, hence, phylogenetically as ancient as IgM.*

## *IgE*

- mediate in allergic reactions.*
- stimulate mast cells for histamine release.*
- present only in mammals, hence, phylogenetically, neoteric.*
- immunity against parasitic worms (fasciola hepatica an so on) and some protozoans (Plasmodium falciparum for instance.)*

## *IgG*

- smallest immunoglobulin.*
- passed from mother to fetus.*
- accounts for 75% of all immunoglobulins present in human serum, by far most abundant.*
- the typical immunoglobulin: opsonization, agglutination, activation of complement system and wrath of god.*