

Immunostimulants

&

Immunosuppressant

Immunostimulants

- **They also known as Immunomodulators.**
- They are drugs that used to increase immune response.
- **Immunostimulants**, also known as **immunostimulators**, they are substances that stimulate the immune system
- Immunostimulants are substance that increase the ability of immune system to fight against disease and infection.

USES : - Immunostimulants

Immunostimulants are useful in :-

- Infections
- Cancers
- Immunodeficiency
- To prevent infections.

TYPES :- Immunostimulants

Specific Immunostimulants

Provide Antigen specific immunity. Act as antigen and stimulate antibody production

EXAMPLE :-

➤ Vaccines

Non Specific Immunostimulants

They act against antigen or to enhance immune response by acting on T lymphocytes.

EXAMPLE :-

- Immunoglobulins
- Thalidomide
- Interferones or cytokines
- Immunocynin

SIDE-EFFECT (Immunostimulants)

Nausea, Chills, Fatigue.

Headache, Back/joint pain.

Fever., Vomiting.

Constipation.

IMMUNOSUPPRESSANT

- Immunosuppressants are drugs that inhibit immunity.
- They suppress cell mediated or antibody mediated immune response or both.
- They are mainly used in Autoimmune disease and to prevent organ transplant/graft rejection.

IMMUNOSUPPRESSANT

- Organ transplant.
- Inflammatory bowel disease, including Crohn's disease and ulcerative colitis.
- Lupus.
- Multiple sclerosis.
- Psoriasis or psoriatic arthritis, Rheumatoid arthritis.

IMMUNOSUPPRESSANT :- TYPES



1. T-Cell Inhibitors- cyclosporine, tacrolimus, sirolimus

2. Cytotoxic drugs :- Methotrexate, Azathioprine, Cyclophosphamide, Chlrambucil

3. Corticosteroids :- Methyl prednisone, Hydrocortisone,

4. Immunosuppressant antibodies :- muronomab, infliximab

SIDE-EFFECT

- Blood infections like sepsis.
- Fungal infections like thrush and skin fungus.
- Skin infections like cellulitis.
- Respiratory infections, including colds, flu and pneumonia.

- Acne, Diabetes (glucocorticoids)
- Fatigue, Hair loss or growth.
- Headaches
- Trouble concentrating or remembering.
- High blood pressure
- Mouth sores.
- Thinning bones (osteoporosis)
- Weight gain. (glucocorticoids)
- Stomach upset and nausea and vomiting