Vaccination
Types of Vaccines

**Inactivated**
Whole microorganisms destroyed by heat, chemicals, radiation or antibiotics.
For influenza, cholera, tuberculous plague, polio.

**Subunit**
A protein component of the microorganisms e.g. surface proteins or synthetic virus-like particles lacking viral genetic material (unable to replicate)
For hepatitis B, HPV

**Attenuated**
Live microorganisms modified to be less deadly or closely related microorganisms that induce immunity (provokes better immune response but dangerous for immunocompromised individuals)
For yellow fever, measles, rabies, mumps, tuberculosis

**Conjugate**
Polyacrylamide in bacteria’s outer coats that poorly stimulate the immune system (poor immunogen), paired with a protein that is highly immunogenic (as an adjuvant)
For Haemophilus influenzae type

**Toxoid**
Inactivated toxic compounds.
For tetanus, diphtheria, snake bites

**Heterotypic/Jennerian**
Pathogens that infect other animals but do not cause disease or cause mild disease in human like cowpox.
For tuberculosis (Mycobacterium bovis (BCG))

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**Vaccination And Your Liver**

Most hepatitis A vaccines are considered inactivated vaccines. They are available in pediatric and adult dosages.

The hepatitis B vaccine is classified as a recombinant subunit vaccine.

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**Doctor’s Tip**

Vaccination status should be updated when you see your primary care doctor.
Many vaccinations require a booster later in life.
- Dr. Bianca Chang, University of Chicago Hospital

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**Get Fit**

Get Fit is a campaign provided by the American Liver Foundation, Great Lakes Division. Learn more by visiting us at http://www.LiverFoundation.org/GreatLakes

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