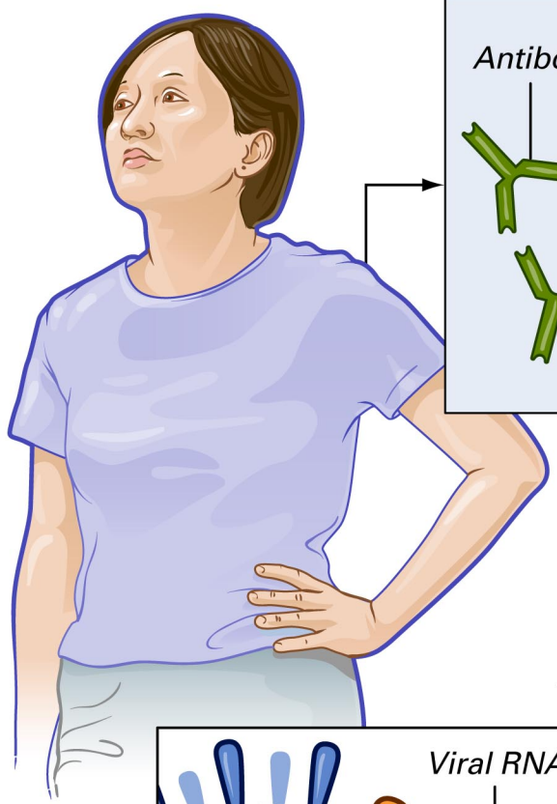
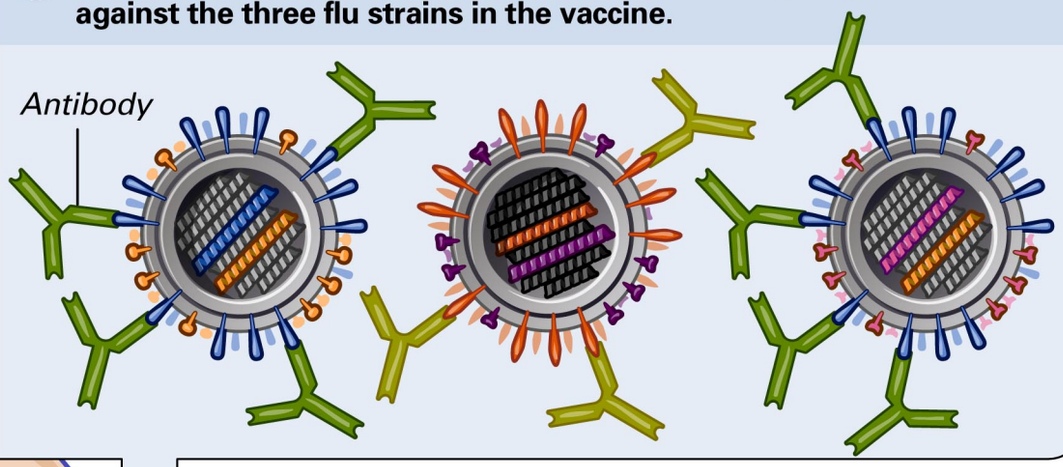
1 Each year's flu vaccine contains three flu strains – two A strains and one B strain – that can change from year to year.

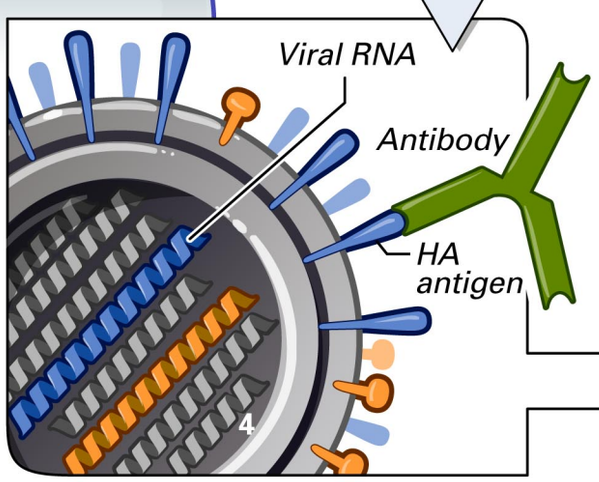
2 After vaccination, your body produces infection-fighting antibodies against the three flu strains in the vaccine.

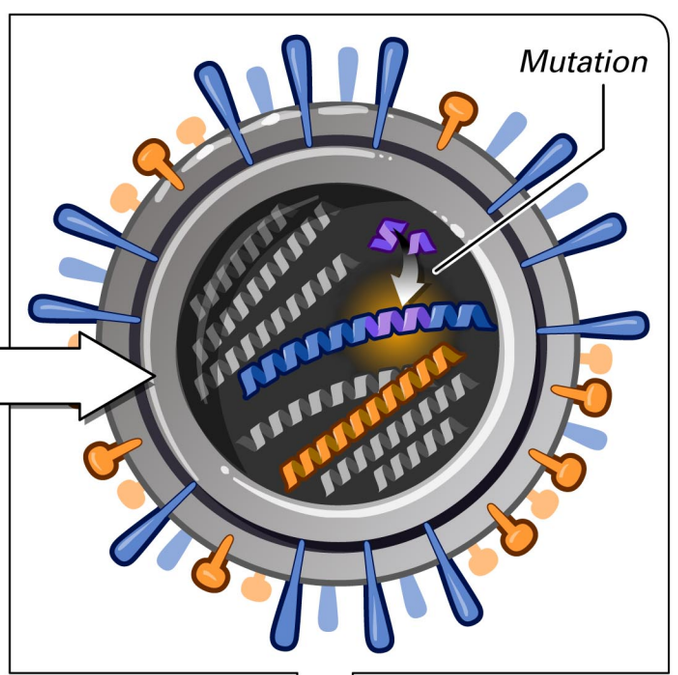




3 If you are exposed to any of the three flu strains during the flu season, the antibodies will latch onto the virus's HA antigens, preventing the flu virus from attaching to healthy cells and infecting them.

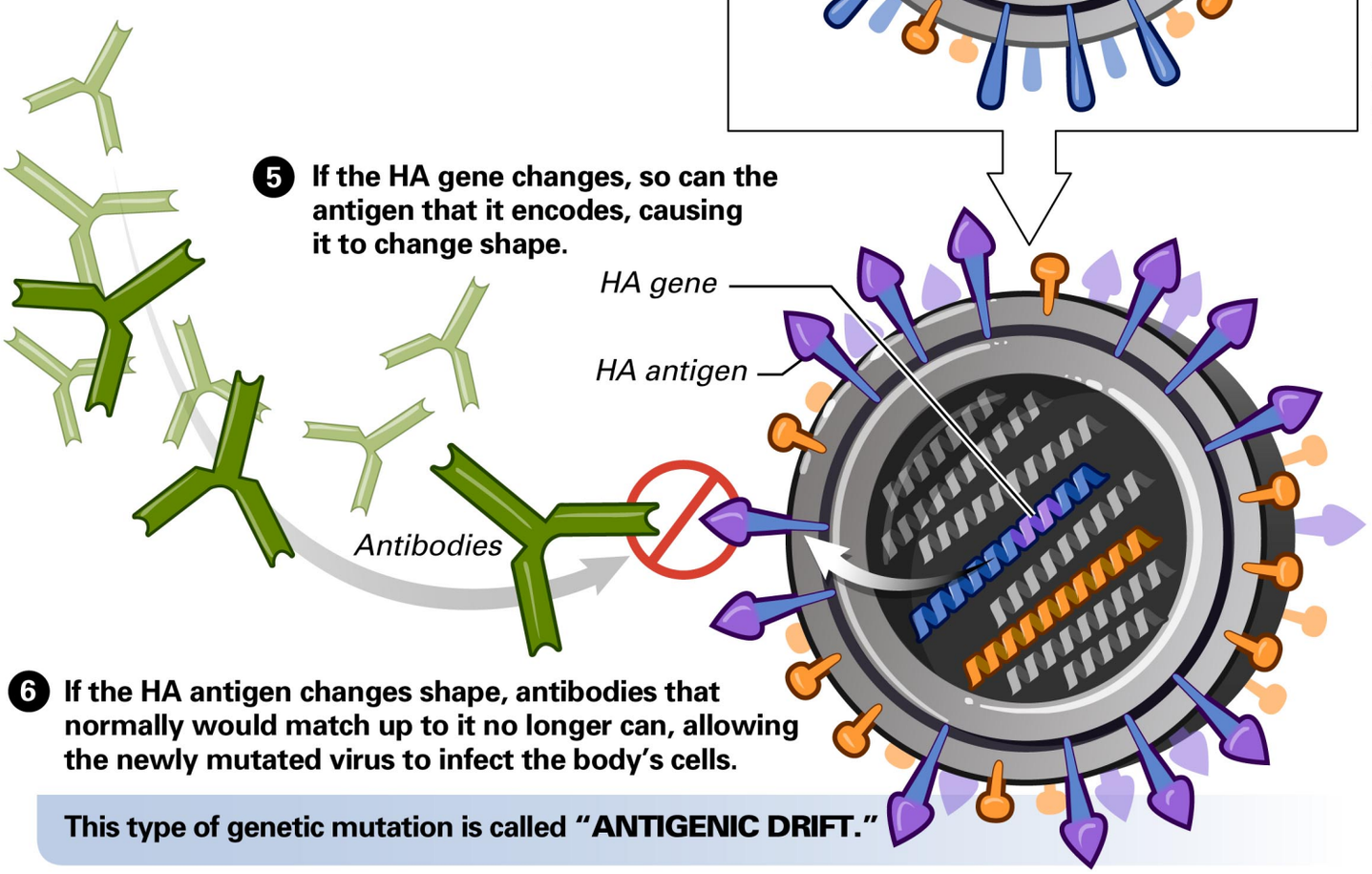
4 Influenza virus genes, made of RNA, are more prone to mutations than genes made of DNA.





Link Studio for NIAID

5 If the HA gene changes, so can the antigen that it encodes, causing it to change shape.



6 If the HA antigen changes shape, antibodies that normally would match up to it no longer can, allowing the newly mutated virus to infect the body's cells.

This type of genetic mutation is called **"ANTIGENIC DRIFT."**