Accurate information is key to understanding how to prevent the spread of COVID-19. But what can be difficult is the increasing number of complicated terminologies—and what seems like an upheaval in our language with new or unfamiliar words—that have developed over the course of the pandemic.

Making matters worse, some of these basic concepts have been muddied by misinformation. From asymptomatic to breakthrough infections and booster doses, there are some terms physicians can help their patients grasp to improve their understanding of COVID-19.

The AMA recognizes the critical importance of scientific integrity, transparency and public trust as we fight to contain the global spread of COVID-19 and plan for the authorization, distribution and administration of COVID-19 vaccines. Stay up to date with the AMA on COVID-19 vaccine development.

This brief glossary will help guide physicians through different terms to further educate patients about the COVID-19 pandemic.

**Asymptomatic**

When a person has no symptoms of a disease but can still transmit the virus that causes the disease to others, this means they are asymptomatic. In terms of COVID-19, this means a person does not have a fever, dry cough, sore throat, shortness of breath, body aches or other common symptoms. When a person has COVID-19 but is asymptomatic, they pose a risk for spreading COVID-19. That is why it is important to get tested, isolate if the result is positive, and get medical care.
Booster dose

A COVID-19 booster is a dose of vaccine administered when the initial sufficient immune response to a primary vaccine series is likely to have waned over time. Anyone 16 or older who is at least six months past their second shot of the two-dose mRNA vaccine from Pfizer-BioNTech should get a booster dose.

Johnson & Johnson’s COVID-19 vaccine booster received EUA for all adults two months after their initial dose. For the two-dose mRNA vaccine from Moderna, all adults should also get a booster dose six months after their second shot.

Discover what doctors wish patients knew about COVID-19 vaccine boosters.

Additional primary dose

The administration of an additional vaccine dose, which is considered part of the primary series, occurs when the initial immune response following a primary vaccine series is likely to be insufficient. This may be needed for people who are moderately to severely immunocompromised and did not build adequate protection after the primary series.

An additional primary shot may prevent serious and possibly life-threatening COVID-19 in people who may not have responded to their two-dose mRNA COVID-19 vaccine primary series.

Learn what to tell immunocompromised patients about COVID-19 vaccines.

Breakthrough infections

Some people who are fully vaccinated may develop COVID-19, which is expected. This is a breakthrough infection, which is defined as detection of SARS-CoV-2 RNA or antigen in a respiratory specimen collected from a person 14 days after receipt of all recommended doses of one of the three vaccines authorized or approved in the U.S. The more dangerous Delta variant of SARS-CoV-2 contributed to more COVID-19 vaccine breakthrough infections in the U.S.

Read what doctors wish patients knew about breakthrough COVID infections.
Clinical trials

To answer questions about new treatments as well as repurposing old medications, clinical trials are conducted. In the case of COVID-19, these research experiments on human participants identified safety and efficacy of potential vaccines and therapeutics.

Discover what physicians need to know about COVID-19 clinical therapeutics.

Contact tracing

This is the identification and follow-up of people who may have come into contact with someone infected with COVID-19. While contact tracing is an important tool for countries to deploy and use effectively to contain an outbreak, it has not been successfully employed in the U.S. during the COVID-19 pandemic due to the volume of cases. Nevertheless, contact tracing remains key to slowing the spread and controlling the increase in COVID-19 cases.

Discover what doctors wish patients knew about contact tracing.

Coronavirus variants

The Centers for Disease Control and Prevention (CDC) defines a variant as a viral genome that may contain one or more mutations. There may also be cases where a group of variants have similar genetic changes, which is a lineage or group of lineages.

When this occurs, the variant may be designated by the CDC and other public health organizations as a “variant of concern” or a “variant of interest.” The Delta and Omicron variants are examples of variants of concern.

Find out what doctors wish patients knew about the dangerous Delta variant.

Fully vaccinated

A person is considered fully vaccinated against COVID-19 two weeks after their second dose in a two-dose series such as the mRNA vaccines from Pfizer-BioNTech and Moderna. If a person got the Johnson & Johnson vaccine, they are considered fully vaccinated after a single dose.
If someone does not meet these requirements—regardless of age—they are not fully vaccinated and should continue to follow all precautions.

Herd immunity

This occurs when a significant portion of a population becomes immune to an infectious disease, limiting further disease spread. For those who are not immune, they are indirectly protected because the ongoing disease spread is small.

Read about what doctors wish patients knew about COVID-19 herd immunity.

Heterologous boosting

FDA authorization and CDC recommendations allow for heterologous boosting—aka “mixing and matching”—with a single dose of any of the authorized COVID-19 vaccine boosters. Physicians should keep in mind clinical considerations, including rare adverse events, and perform an individual benefit-risk assessment to inform patients about which booster vaccine to use. Heterologous dosing may only be considered for the booster dose, though.

Learn more about what the evidence shows about mixing and matching COVID-19 vaccine boosters.

Isolation

If someone has tested positive for SARS-CoV-2, the virus that causes COVID-19, they should go into isolation. A person should isolate when they have been infected with SARS-CoV-2, even if they do not have any symptoms. This is to separate and protect people who are not sick. Isolation may be voluntary or required by federal, state or local public health orders.

Quarantine

Unlike isolation, quarantine occurs when a person might have been exposed to SARS-CoV-2. If a person has potentially been exposed, they should quarantine by refraining from any contact with other individuals for about two weeks. Follow the recommendations of your local public health department if you need to quarantine.
Learn more from the CDC about quarantine and isolation.

**Long COVID**

It is estimated that anywhere from 15% to 80% of patients might experience long COVID after recovering—even if they weren’t very sick in the first place. This leaves many COVID long-haulers with questions about symptoms and what to do.

Long COVID—or post-COVID conditions—is a wide range of new, returning or ongoing health problems people may experience more than four weeks after being first infected with SARS-CoV-2. Even people who did not have any symptoms can experience long COVID, which can present as different types and combinations of health problems and can range in lengths of time.

Discover what doctors wish patients knew about long COVID.

**Immunity**

Natural immunity is acquired from exposure to the disease organism through infection with the actual disease. Getting COVID-19 may offer some natural immunity. Current evidence suggests that reinfection with the virus that causes COVID-19 is uncommon in the 90 days after initial infection.

However, experts don’t know for sure how long this protection lasts, and the risk of severe illness and death from COVID-19 far outweighs any benefits of natural immunity. Individuals who have had COVID-19 are still recommended to get vaccinated. Learn more from the CDC about immunity types.

Visit the AMA COVID-19 resource center for clinical information, guides and resources, and updates on advocacy and medical ethics.

The AMA has developed frequently-asked-questions documents on COVID-19 vaccination covering safety, allocation and distribution, administration and more. There are two FAQs, one designed to answer patients’ questions (PDF), and another to address physicians’ COVID-19 vaccine questions (PDF).