

The Vaccine Life Cycle

safety at every phase

GUIDE

ACIP

ADVISORY
COMMITTEE ON
IMMUNIZATION
PRACTICES

BLA

BIOLOGICS LICENSE
APPLICATION

CDC

CENTERS FOR
DISEASE CONTROL
AND PREVENTION

FDA

FOOD AND DRUG
ADMINISTRATION

IND

INVESTIGATIONAL
NEW DRUG
APPLICATION

VACCINE DEVELOPMENT

safety
is a priority
during vaccine
development
+ approval

PHASE 1
safety

PHASE 2
effectiveness

PHASE 3
safety +
effectiveness

CLINICAL STUDIES / TRIALS

BASIC
RESEARCH

DISCOVERY

PRE-
CLINICAL
STUDIES

IND SUBMITTED

BLA SUBMITTED

FDA
REVIEW

FDA APPROVAL OF 1 NEW VACCINE

ACIP
REVIEW

ACIP RECOMMENDATION

POST-APPROVAL
MONITORING +
RESEARCH

PHASE 4

safety monitoring for
serious, unexpected
adverse events

safety
continues with
CDC + FDA
safety
monitoring



LEARN
MORE

[FDA VACCINE DEVELOPMENT + APPROVAL PROCESS](http://go.usa.gov/xvvNd) <http://go.usa.gov/xvvNd>

[CDC VACCINE SAFETY MONITORING + RESEARCH](http://go.usa.gov/xvvNe) <http://go.usa.gov/xvvNe>