|  |  |
| --- | --- |
| Logo AGES | |
| Corona virus | |
|  |  |
| 19.04.2025 14:13 Uhr | |

**Corona
virus**

**SARS-CoV-2**

Last
change:
26.03.2025

**Profile**

SARS-CoV-2
(Severe
acute
respiratory
syndrome
coronavirus
-
type
2)
is
the
causative
agent
of
the
infectious
disease
COVID-19
(Coronavirus
Disease
2019).
It
is
a
single-stranded
RNA
virus
and
belongs
to
the
beta-coronavirus
family.

**Occurrence**

Worldwide

**Pathogen
reservoir**

Various
domestic,
pet,
and
wild/zoo
animal
species,
such
as
felines
(including
large
cats
such
as
tigers,
lions,
etc.),
dogs,
ferrets,
tanuki,
deer,
golden
hamsters,
rabbits,
and
various
primates
(e.g.,
gorillas)
can
be
infected
with
SARS-CoV-2.
In
all
known
cases
of
natural
infection,
it
most
likely
occurred
via
infected
humans.
The
severity
of
clinical
signs
ranges
from
asymptomatic
to
mild
clinical
signs,
depending
on
the
species
affected
(primarily
felines
and
ferrets,
as
well
as
minks);
according
to
current
knowledge,
animals
play
no
role
in
the
spread
of
infection.
An
exception
is
mink
from
commercial
fur
farms,
where
infection
of
exposed
humans
has
been
documented.

Currently,
it
is
not
considered
necessary
or
advisable
to
separate
from
pets
in
case
of
infection
of
humans
or
animals.

**Infection
route**

Transmission
of
SARS-CoV-2
occurs
mainly
via
virus-containing
particles
that
are
excreted,
for
example,
when
infectious
persons
speak
loudly,
sing,
or
cough
or
sneeze.
Aerosols
(finest
airborne
liquid
particles)
and
droplets
play
a
crucial
role
in
this
process.
Aerosols
can
remain
suspended
in
the
air
for
prolonged
periods
of
time
and
disperse
in
inadequately
ventilated
indoor
spaces,
leading
to
infection.

The
relative
risk
of
environmental
SARS-CoV-2
transmission
through
contaminated
surfaces
is
considered
low
compared
with
direct
contact,
droplet
transmission,
or
airborne
transmission.

**Incubation
period**

For
earlier
variants
of
SARS-CoV-2,
an
average
of
five
to
six
days,
in
some
cases
up
to
14
days.

For
the
omicron
variant,
the
incubation
period
is
often
shorter,
with
estimates
averaging
three
days

**Symptomatology**

The
symptomatology
of
SARS-CoV-2
infections
depends
in
its
duration,
frequency,
and
severity
on
the
circulating
variant,
among
other
factors.
The
most
common
symptoms
observed
to
date
include:
Fever,
chills,
and
sore
throat.
Also
common
are
cough,
difficulty
breathing,
general
symptoms
such
as
fatigue
and
aching
limbs,
loss
of
smell
and
taste,
nausea
and
vomiting,
dizziness,
and
difficulty
sleeping.

In
more
severe
cases,
the
infection
causes
severe
shortness
of
breath
(at
rest
or
when
speaking),
confusion,
drowsiness
or
loss
of
consciousness,
chest
pain
or
pressure,
and
pale
to
bluish
skin
color,
among
other
symptoms.
Severe
courses
can
lead
to
death.

There
are
also
asymptomatic
courses.

Infections
with
SARS-CoV-2
can
have
long-term
consequences.
A
distinction
is
made
between
long-COVID
and
post-COVID
(see
the
technical
information).
The
symptoms
can
be
of
a
physical
and/or
psychological
nature.
Frequently,
a
so-called
"fatigue"
is
reported
by
those
affected.

This
list
does
not
contain
all
possible
symptoms,
the
course
can
be
very
different
(see
technical
information).
The
symptoms
vary
depending
on
the
SARS-CoV-2
variant
and
the
immune
status
of
the
affected
person.

**Therapy**

Treatment
of
mildly
symptomatic
patients
without
risk
factors
for
a
severe
course
is
basically
symptomatic,
i.e.,
by
alleviating
the
symptoms
of
the
disease,
e.g.,
by
administering
antipyretics.

For
high-risk
patients
and
patients
with
a
severe
course,
various
pharmaceutical
agents
are
available
(e.g.,
paxlovide,
veklury,
or
corticosteroids).

The
use
of
antibiotics
is
not
recommended
(unless
there
is
a
bacterial
superinfection),
as
antibiotics
are
not
effective
against
SARS-CoV-2.

**Prevention**

Vaccination,
depending
on
the
circulating
variant
and
the
timing
and
level
of
immunization,
partially
protects
against
infection
and,
in
particular,
against
severe
courses
and
death.

To
protect
against
infection,
it
is
recommended
that
hands
be
washed
with
soap
and
water
or
disinfected
with
an
alcohol-based
disinfectant
several
times
a
day.
It
is
also
recommended
to
ventilate
indoor
areas
regularly
and
spend
time
outdoors
whenever
possible.
To
minimize
the
risk
of
infection,
in
addition
to
vaccination,
[WHO
advises](https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public#:~:text=Keep%20physical%20distance%20of%20at,rub%20or%20soap%20and%20water.)
continuing
to
keep
your
distance
and
wearing
a
well-fitting
mask
if
distance
is
not
possible
and
the
room
is
poorly
ventilated.
As
a
general
rule,
when
sneezing,
it
is
always
advised
to
cover
the
mouth
and
nose
with
a
cloth
or
bent
elbow,
not
the
hands.

These
preventive
measures
generally
reduce
the
risk
of
colds
and
are
especially
recommended
when
infection
or
hospitalization
rates
increase.

If
symptoms
appear,
it
is
advised
to
stay
at
home
and
avoid
contact.

**Situation
in
Austria**

By
30
June
2023,
6,084,529
cases
had
been
reported
in
Austria.
The
graph
on
the
development
of
the
7-day
incidence
shows
the
course
of
the
pandemic
from
28
February
2020.
The
peak
of
the
7-day
incidence
was
reached
in
March
2022,
with
the
most
cases
reported
in
one
day
on
15
March
2022
(63,468).
Since
30
June
2023,
COVID-19
is
no
longer
a
notifiable
disease
in
Austria.

The
[SARI
dashboard](https://www.sari-dashboard.at/)
shows
inpatient
admissions
to
Austrian
hospitals
with
diagnoses
of
Severe
Acute
Respiratory
Infections
(SARI).
These
include
COVID-19,
influenza,
RSV
and
other
severe
respiratory
diseases.

**Variants
in
Austria**

AGES
carried
out
whole
genome
sequencing
of
SARS-CoV-2-positive
samples
until
20
June
2024
in
order
to
break
down
the
spread
of
known
variants
and
discover
new
SARS-CoV-2
variants.
Due
to
the
low
number
of
SARS-CoV-2
samples
for
sequencing,
these
analyses
have
been
paused
for
the
time
being.

A
detailed
breakdown
of
the
SARS-CoV-2
variants
registered
between
the
beginning
of
July
2023
and
June
2024
can
be
found
in
the
.csv
file
at
the
bottom
of
the
page
under
"Downloads".

Further
information
can
be
found
on
the
[dashboard
of
the
national
wastewater
monitoring
programme](https://abwassermonitoring.at/dashboard/).

**International
variants**

The
SARS-CoV-2
variants
are
categorised
by
the
ECDC
and
the
WHO
into
different
categories,
depending
on
how
their
characteristics
and
further
development
are
assessed:
Variant
of
Concern
(VOC),
Variant
of
Interest
(VOI)
and
Variant
under
Monitoring
(VUM).

No
variant
is
currently
considered
to
be
a
**Variant
of
Concern**.

On
24
January
2025,
the
WHO
added
LP.8.1
as
a
"Variant
under
Monitoring".

An
overview
of
the
exact
classifications
can
be
found
in
the
table
below.

According
to
the
latest
monthly
COVID-19
update
from
the
WHO
dated
17
January
2025,
XEC
was
the
most
common
SARS-CoV-2
variant
worldwide
in
December
with
a
prevalence
of
approx.
38.6
%.
KP.3.1.1
has
decreased
in
prevalence
and
now
accounts
for
33.2%
of
sequencing
worldwide.

The
most
common
SARS-CoV-2
variants
in
Europe
in
the
third
week
of
January
were
XEC
(58%),
KP.3.1.1
(12%),
KP.3.1
(8
%),
JN.1
(5
%)
and
JN.1.11
(4
%),
JN.1.16.1
(3
%),
JN.1.16
(3
%),
KP.1.1
(2
%)
and
KP.3
(2
%).

The
weekly
updates
of
the
variants
are
discontinued,
significant
developments
can
be
found
monthly
in
the
[AGES
radar
for
infectious
diseases.](en/human/disease/ages-radar-for-infectious-diseases)

Variants
under
observation

| **Variant** | **WHO** | **ECDC** |
| BA.2.86 |  | VOI |
| JN.1 | VOI |  |
| KP.2 | VUM |  |
| CP.3 | VUM | VOI |
| KP.3.1.1 | VUM |  |
| JN.1.18 | VUM |  |
| LB.1 | VUM |  |
| XEC | VUM | VUM |
| LP.8.1 | VUM |  |

VOC
=
Variant
of
Concern,
VOI
=
Variant
of
Interest,
VUM
=
Variant
under
Monitoring

Mutations
repeatedly
lead
to
a
line
splitting
into
several,
slightly
different
lines.
These
are
known
as
sublines.
They
are
often
given
their
own
names
and
numbers,
which
means
that
the
relationship
is
not
always
obvious
(as
in
the
case
of
subline
JN.1,
which
belongs
to
BA.2.86,
see
legend).

Legend:

VOC
=
Variant
of
Concern

VOI
=
Variant
of
Interest

VUM
=
Variant
under
Monitoring

\*
=
Variant
including
associated
sublines

BA.2.86
=
B.1.1.529.2.86

JN.1
=
BA.2.86
+
S:L455S

KP.2
=
JN.1
+
S:R346T,
S:F456L,
S:V1104L

KP.3
=
JN.1
+
S:F456L,
S:Q493E,
S:V1104L

KP.3.1.1
=
KP.3
+
S:S31-

KP.3.1.1
=
KP.3
+
S:S31-

JN.1.18
=
JN.1
+
S:R346T

LB.1
=
JN.1
+
S:S31-,
S:Q183H,
S:R346T,
S:F456L

XEC
=
KS.1.1
+
KP.3.3

**Specialized
information**

Symptomatology

Via
entry
into
cells
through
the
ACE2
receptor,
manifestations
are
possible
in
all
tissues
where
these
receptors
are
present;
the
type
and
severity
of
manifestation
depends,
among
other
things,
on
the
density
of
the
receptors.
In
addition,
in
some
cases
there
are
exaggerated
immune
reactions
and
circulatory
disturbances
as
a
result
of
increased
blood
clotting.

Pulmonary
manifestations
are
very
common.
In
addition
to
colds,
pneumonia
can
develop
during
the
course
of
the
disease,
which
can
subsequently
turn
into
Acute
Respiratory
Syndrome
(ARDS).
This
may
necessitate
extracorporeal
oxygen
saturation
by
ECMO.

Neurologically,
COVID-19
may
manifest
neuropsychiatrically
in
addition
to
headache,
dizziness,
and
confusion;
strokes,
(meningo)
encephalopathies,
Guillain-Barré
and
Miller-Fisher
syndromes
also
occur.

Cardiovascularly,
myocardial
damage,
myocarditis,
acute
myocardial
infarction,
heart
failure,
cardiac
arrhythmias,
and
various
thromboembolic
events
resulting
from
the
infection
have
been
described.

Especially
in
severely
ill
COVID-19
patients,
renal
failure
(requiring
dialysis)
may
occur.

If
hyperinflammatory
syndromes
occur,
damage
to
various
organs
occurs
as
a
consequence
(multi-organ
failure).
The
mortality
is
high[(RKI
-
Coronavirus
SARS-CoV-2
-
Hyperinflammation
Syndrome
in
COVID-19
(27.07.2020](https://www.rki.de/DE/Content/InfAZ/N/Neuartiges_Coronavirus/COVRIIN_Dok/Hyperinflammationssyndrom.html?nn=13490888))).

Co-infections
frequently
occur,
including
with
*Mycoplasma
pneumoniae*,
*Candida
albicans*,
and
*Aspergillus*
spp.

Known
risk
factors
for
a
severe
course
include:
Hypertension,
diabetes
mellitus,
chronic
liver
and
kidney
damage,
coronary
artery
disease,
COPD
(chronic
obstructive
pulmonary
disease),
cerebrovascular
disease,
regular
use
of
immunosuppressive
drugs,
cancer,
obesity,
arrhythmias,
and
ischemic
heart
disease[(see
ECDC](https://www.ecdc.europa.eu/en/infectious-disease-topics/z-disease-list/covid-19/facts/clinical-features-and-sequelae)).

Infections
with
SARS-CoV-2
may
involve
long-term
sequelae.
A
distinction
is
made
between
long-COVID
and
post-COVID.
Long-COVID
is
when
symptoms
that
occurred
during
the
confirmed
infection
persist
for
more
than
four
weeks
after
the
onset
of
illness.
Symptoms
that
do
not
appear
until
twelve
weeks
after
the
onset
of
the
disease
or
reappear,
persist
for
at
least
two
months,
and
cannot
be
explained
in
any
other
way
are
referred
to
as
post-COVID.
The
symptoms
can
be
of
a
physical
and/or
psychological
nature.
Fatigue
is
frequently
reported
by
those
affected,
as
well
as
shortness
of
breath,
concentration
and
memory
problems,
sleep
disturbances,
muscle
weakness
and
muscle
pain.

Therapy

The
current
therapy
recommendations
for
the
treatment
of
an
infection
with
SARS-CoV-2
can
be
found
here:

[AWMF
Guideline
Register](https://register.awmf.org/de/leitlinien/detail/113-001LG)

[RKI
-
Coronavirus
SARS-CoV-2
-
COVID-19:
Therapy
notes
and
recommendations](https://www.rki.de/DE/Content/InfAZ/N/Neuartiges_Coronavirus/Therapie/Therapie_Tab.html)

**Diagnostic**

Diagnosis
of
infection
with
SARS-CoV-2
is
made
by
means
of
a
secretion
obtained
from
the
upper
respiratory
tract,
for
example
by
means
of
a
mouth
or
nasopharyngeal
swab.
Samples
should
be
taken
as
close
as
possible
to
the
onset
of
symptoms.
The
samples
obtained
can
be
used
to
perform
rapid
antigen
tests,
for
which
the
result
is
usually
available
within
ten
to
30
minutes.
The
most
reliable
detection
method
is
PCR
testing
for
SARS-CoV-2
RNA.
Saliva
samples
can
also
be
examined
by
PCR;
antigen
tests
are
too
unspecific
here.

In
hospitalized
patients,
secretions
from
the
lower
respiratory
tract
can
be
obtained
for
PCR
diagnosis.

Blood
tests
for
the
detection
of
SARS-CoV-2
antibodies
can
detect
infections
that
have
already
occurred,
but
are
not
important
for
acute
diagnostics.
The
test
for
antibodies
may
also
be
positive
as
a
result
of
previous
vaccination.
A
negative
result
does
not
exclude
a
previous
infection
with
SARS-CoV-2,
as
the
number
of
antibodies
decreases
again
with
time.

**Downloads**

**Variants**

* csv
  Varianta
  in
  Austria
  -
  as
  of
  07/05/2024
  13
  KB
* csv
  Variants
  in
  Austria
  -
  as
  of
  03/04/2024
  11
  KB
* csv
  Variants
  in
  Austria
  -
  as
  at
  27/02/2024
  10
  KB
* csv
  Variants
  in
  Austria
  -
  as
  at
  05/02/2024
  9
  KB
* csv
  Variants
  in
  Austria
  -
  as
  at
  29/01/2024
  8
  KB
* csv
  Variants
  in
  Austria
  -
  as
  at
  22/01/2024
  8
  KB
* csv
  Variants
  in
  Austria
  -
  as
  at
  15
  January
  2024
  8
  KB
* csv
  Variants
  in
  Austria
  -
  as
  at
  09.01.2024
  7
  KB
* csv
  Variants
  in
  Austria
  -
  as
  at
  29/12/2023
  6
  KB
* csv
  Variants
  in
  Austria
  -
  as
  at
  19/12/2023
  6
  KB
* csv
  Variants
  in
  Austria
  -
  as
  at
  11/12/2023
  5
  KB
* csv
  Variants
  in
  Austria
  -
  as
  at
  04/12/2023
  5
  KB
* csv
  Variants
  in
  Austria
  -
  as
  at
  28
  November
  2023
  5
  KB
* csv
  Variants
  in
  Austria
  -
  as
  at
  20
  November
  2023
  5
  KB
* csv
  Variants
  in
  Austria
  -
  as
  at
  13
  November
  2023
  4
  KB
* csv
  Variants
  in
  Austria
  -
  as
  at
  06/11/2023
  4
  KB
* csv
  Variants
  in
  Austria
  -
  as
  at
  30
  October
  2023
  4
  KB
* csv
  Variants
  in
  Austria
  -
  as
  at
  24
  October
  2023
  3
  KB
* csv
  Percentage
  distribution
  of
  variants
  1
  KB
* csv
  Variants
  Number
  of
  cases
  sequenced
  240
  B

**Testing
pharmacies/operations/provinces**

* csv
  timeline-testungen-apotheken-betriebe.csv
  447
  KB
  |
  Data
  status
  26.06.2023
* csv
  timeline-testungen-bundeslaender.csv
  537
  KB
  |
  Data
  status
  26.06.2023