|  |  |
| --- | --- |
| Logo AGES | |
| Sheep Pox, Goatpox | |
|  |  |
| 18.04.2025 04:42 Uhr | |

**Sheep
Pox,
Goatpox**

Last
change:
21.05.2024

**Profile**

Sheeppox
and
goatpox
are
smallpox
diseases
of
small
ruminants.
For
humans,
sheep
and
goat
pox
are
harmless.

**Occurrence**

Endemic
in
Asia
(incl.
European
part
of
Russia),
Asia
Minor,
the
Middle
East
and
Africa.
Sheeppox
and
goatpox
do
not
occur
in
Austria
or
the
EU,
with
the
exception
of
Greece,
Bulgaria,
and
Spain.
Sheeppox
outbreaks
were
first
reported
in
sheep
in
Spain
in
September
2022.

**Host
animals**

Sheep
and
goats.
Infection
of
wild
small
ruminants
with
sheep
or
goat
pox
viruses
is
possible.

**Infection
route**

Infection
usually
occurs
via
direct
animal-to-animal
contact,
often
via
aerosols.
Indirect
spread
via
insects
(e.g.
stable
flies,
via
contaminated
stable
equipment,
tools,
objects
and
transport
vehicles
is
possible
due
to
the
longevity
of
the
virus
in
the
environment.
Improperly
treated
animal
hides
and
skins
are
also
important
sources
of
pathogen
spread.

**Incubation
time**

4-14
days

**Symptoms**

High
fever
(40-42
°C),
nasal
and
eye
discharge,
pneumonia,
disturbance
of
the
general
condition,
languor,
refusal
to
eat
due
to
painful
blisters
in
the
mouth.
The
mortality
rate
varies
between
50
%
and
100
%
and
is
particularly
high
in
young
animals.

**Therapy**

There
is
no
therapy

**Prevention**

Intensive
observation
or
short-term
segregation
of
newly
purchased
animals
or
goats
and
rams
newly
recruited
for
mating.
Vaccines
are
available
but
not
licensed
in
the
EU.
Prophylactic
vaccination
is
prohibited
in
all
EU
countries.

**Situation
in
Austria**

Sheep
and
goat
pox
are
among
the
notifiable
diseases
of
small
ruminants
(category
A
animal
disease).
So
far,
the
disease
has
not
occurred
in
Austria.

**Specialist
information**

Sheep
and
goat
pox
are
endemic
in
Africa,
the
Middle
East,
Asia
Minor
(Turkey)
and
Asia
(e.g.
in
the
Asian
part
of
Russia,
China,
India).
Since
2018,
there
have
been
repeated
outbreaks
in
the
European
part
of
Russia
on
the
border
with
Finland,
Estonia,
Latvia,
Belarus
and
Ukraine.
In
Europe,
outbreaks
have
been
reported
in
Greece
(2013-2014,
2015,
2017,
2023)
and
Bulgaria
(2013,
2023).
In
2022,
the
animal
disease
reached
Spain
for
the
first
time.
Information
on
the
current
animal
disease
situation
in
Spain
can
be
found
in
the
[World
Animal
Health
Information
System](https://wahis.woah.org/#/home).

Affected
animal
species
are
sheep
and
goats.
Infections
of
wild
small
ruminants
have
been
documented.
In
Europe,
the
European
mouflon
has
been
shown
to
be
a
susceptible
species.
Data
on*ibex
(Capra
ibex*)
and
chamois*(Rubicapra
sp.*)
are
lacking.
Human
infection
with
the
sheep
or
goat
pox
virus
is
not
known.

The
import
of
sheep
and
goats
from
regions
where
sheep
pox
and
goat
pox
are
endemic
is
prohibited.
The
initial
occurrence
of
these
animal
diseases
in
Greece
and
Bulgaria
could
be
attributed
to
the
illegal
movement
of
individual
infected
animals
in
the
course
of
transhumance
or
immigration
movements
as
well
as
illegal
animal
trade
(EFSA
Journal
2014;12(11):3885.).
The
initial
occurrence
in
Spain
is
thought
to
have
been
caused
by
an
entry
from
North
Africa.
Healthy
animals
are
only
moved
within
the
affected
EU
states
of
Greece
and
Bulgaria
for
the
purposes
of
breeding
and
slaughter.
Other
mechanisms
of
spread
over
longer
geographical
distances
(e.g.
via
wild
animals,
birds
or
vectors)
have
not
been
researched.

The
causative
agents
of
sheep
and
goat
pox,
the
sheep
pox
virus
(SPPV)
and
the
goat
pox
virus
(GTPV),
belong
to
the
genus
Capripoxvirus.
The
sheep
pox
and
goat
pox
viruses
are
double-stranded,
enveloped
DNA
viruses
(size:
170-260nm
x
300-450nm).
They
occur
in
genetically
different
strains.
Some
of
these
virus
strains
can
be
specialised
to
the
animal
species
named
after
them;
however,
some
strains
can
infect
both
goats
and
sheep.
Phylogenetically,
the
sheep
pox
virus
and
the
goat
pox
virus
differ
from
the
lumpy
skin
disease
virus
(LSDV),
which
also
belongs
to
the
capripoxviruses;
serologically,
capripoxviruses
cannot
yet
be
differentiated.

The
pathogens
are
spread
directly
from
infected
to
healthy
animals
via
aerosols
contaminated
with
pathogens
through
coughing,
sneezing
and
vigorous
head
shaking.
Excretions
containing
pathogens
(nasal
and
eye
secretions,
coughing
mucus)
are
spread
in
the
process.
Direct
transmission
of
pathogens
via
open
skin
wounds
on
contact
with
infected
animals
is
also
possible.
Suckling
lambs
and
fawns
can
also
become
infected
from
infected
dams
via
skin
lesions
on
the
udder.
Infected
animals
are
already
infectious
at
the
first
sign
of
skin
lesions.

Indirect
transmission
occurs
via
arthropods
(e.g.
stable
flies).
Scientific
studies
on
vectors
are
scarce.
Virus-containing
excretions
in
feed,
water,
wool,
in
the
stable
environment
and
in
transporters
as
well
as
poorly
prepared
or
untreated
animal
skins
of
infected
animals
contribute
to
the
spread
of
the
disease.
The
viruses
can
be
detected
in
the
saliva
and
nasal
and
ocular
fluids
of
infected
animals
for
up
to
64
days,
in
the
skin
lesions
for
up
to
30
days,
in
the
crusts
that
have
fallen
off
the
lesions
for
up
to
180
days,
in
the
urine
for
15
days
and
in
the
faeces
for
61
days
after
infection.
The
viruses
can
persist
in
the
environment
for
long
periods
of
time
-
e.g.
up
to
180
days
in
pastures
or
6
months
in
the
shade
of
a
stable
building.
The
viruses
are
susceptible
to
temperatures
above
70
°C
(65
°C/30min.,
56
°C/2h).
Preferred
pH
environment
is
between
6.6
and
8.6.
High
alkaline
or
acidic
pH
destroys
most
pathogens.
1
%
formalin
or
chloroform,
2-3
%
sodium
hypochlorite
and
some
other
virucides
can
inactivate
the
viruses.

**Symptoms**

The
severity
of
the
disease
depends
on
the
virulence
of
the
virus
strain,
the
breed
and
the
age
of
the
host
animals.
The
course
of
the
disease
and
the
severity
of
the
symptoms
are
more
pronounced
in
homologously
infected
animals.
Young
animals
are
more
severely
affected
than
older
animals;
morbidity
is
70-90
%,
mortality
over
50
%.
Mortality
in
lambs
and
fawns
can
be
almost
100
%.
Recovered
animals
have
lifelong
immunity
to
new
infections.

Infection
of
the
animals
usually
occurs
via
open
skin
wounds
or
via
the
respiratory
organs
through
pathogen-carrying
aerosols.
The
first
skin
lesions
appear
6
days
after
infection.
Most
animals
are
not
infectious
until
the
6th
day.
The
first
symptoms
are
nasal
and
ocular
discharge,
fever
(40-42
°C),
respiratory
problems,
loss
of
appetite
and
depressive
behaviour.
Skin
lesions
first
appear
on
the
face,
around
the
lip
and
nose
region
and
on
the
eyelids.
Skin
lesions
are
also
often
found
on
the
udder
and
the
base
of
the
tail
and
sometimes
under
the
wool.
Smallpox
lesions
can
occur
in
almost
all
internal
organs
-
in
the
oral
cavity,
nasal
cavity,
on
the
tongue,
in
the
lungs
and
on
the
mucous
membranes
of
the
digestive
tract
and
respiratory
tract.
Lymph
nodes,
liver
and
spleen
are
affected
to
a
lesser
extent.
Recovery
of
the
animals
is
possible
after
21
dpi.
Although
the
animals
no
longer
show
any
clinical
symptoms,
they
can
shed
pathogens
for
up
to
64
days
after
infection.
The
symptoms
of
the
disease
are
more
pronounced
in
lambs.
Due
to
the
painful
lesions
in
the
mouth,
nose,
respiratory
tract
and
digestive
tract,
the
young
animals
often
refuse
to
eat
and
starve
to
death.

**Therapy,
control**

Sheep
pox
and
goat
pox
are
notifiable
animal
diseases.
The
control
of
both
diseases
is
therefore
based
on

* preventing
  the
  introduction
  and
  spread
  of
  the
  pathogen
  due
  to
  trade
  restrictions
  with
  regard
  to
  animal
  trade
  and
  trade
  in
  animal
  products
  from
  affected
  countries
* early
  detection
  of
  the
  diseases
* In
  the
  event
  of
  an
  epidemic,
  measures
  prescribed
  by
  the
  authorities
  (e.g.
  the
  "stamping
  out"
  method
  (culling
  of
  infected
  and
  suspected
  animals))

If
sheep
and
goat
pox
occurs,
restrictions
on
the
movement
of
animals
and
animal
products
as
well
as
the
establishment
of
protection
zones
around
outbreak
centres
or
other
disease-specific
restrictions
are
to
be
expected.
After
the
culling
of
affected
livestock,
intensive
cleaning
and
disinfection
of
the
stables
and
a
waiting
period
before
re-stocking
are
prerequisites
for
re-housing.
The
observation
and
examination
of
sentinel
animals
is
important
for
the
further
occurrence
of
infections.

Attentuated
live
vaccines
are
available,
but
these
are
not
authorised
in
the
EU.
Diagnostically,
it
is
possible
to
differentiate
between
vaccinated
animals
and
animals
infected
with
a
field
strain
in
SPP;
this
is
not
possible
with
GTP.

**Diagnostics**

**Sample
type**:

Live
animals:

* Skin
  lesions
  and/or
  skin
  crusts.
* Salivary
  fluid
  (native
  in
  tubes
  or
  swab
  possible
  -
  no
  bacteriological
  swab
  transport
  media).
* Nasal
  and
  ocular
  fluid
  (with
  swab
  -
  no
  bacteriological
  swab
  transport
  media)
* Blood
  (EDTA/Heparin)
  and
  serum

Carcasses
(dead):

* Whole
  carcass
* skin
  lesions
  and/or
  skin
  crusts
* Lymph
  nodes
* Spleen
* Lungs
  and
  altered
  regions
  of
  the
  respiratory
  tract
* Nasal
  fluid
  (with
  swab
  -
  no
  bacteriological
  swab
  transport
  media).

Samples
can
be
sent
to
the
National
Reference
Laboratory
for
Capripox
(Institut
für
veterinärmedizinische
Untersuchungen
Mödling)
via
the
official
veterinarian.

**Detection
methods**:

* Molecular
  biological
  methods
  (PCR)
* Detection
  of
  antibodies
  by
  ELISA
* Serum
  neutralization
  test
  (SNT)
* Virus
  cultivation
  in
  cell
  culture
  (for
  research
  purposes
  only)

The
diagnostic
methods
are
also
used
in
exclusion
diagnostics.
Exclusion
diagnostics
not
only
allows
early
detection
of
an
epidemic,
but
also
serves
to
maintain
the
competence
of
laboratory
diagnostic
tests.

**Differential
diagnosis**

Bluetongue,
foot-and-mouth
disease,
plague
of
small
ruminants,
lip
bark,
ovine
herpesvirus
2
(OvHV-2)
infections,
idiopathic
ulceration,
moderate
limp,
insect
bites,
photosensitivity.

**Further
information
-
useful
references**

Consumer
health
communication
platform
(KVG)
-
sheep
and
goat
pox:
[www.verbrauchergesundheit.gv.at/tiere/krankheiten/schaf\_ziegenpocken.html](https://www.verbrauchergesundheit.gv.at/tiere/krankheiten/schaf_ziegenpocken.html)

World
Organisation
for
Animal
Health:
[www.woah.org](https://www.woah.org/)

WOAH
sheep
and
goat
pox
fact
sheet:
<https://www.woah.org/en/disease/sheep-pox-and-goat-pox/>

WAHIS:
<https://wahis.woah.org/#/home>

EFSA:
[www.efsa.europa.eu/de](http://www.efsa.europa.eu/de)

EFSA:
Disease
profiles:[(https://animal-diseases.efsa.europa.eu/)](https://animal-diseases.efsa.europa.eu/)-
Sheep
and
GoatPox:
<https://animal-diseases.efsa.europa.eu/SPPV>

Food
and
Agriculture
Organization
(FAO):
<https://www.fao.org/home/en>

Specific
Diseases
of
sheeps
and
Goats:
<https://www.fao.org/3/t0756e/T0756E06.htm>

**Contact**

**National
reference
laboratory
for
capripox**

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Untersuchungen
Mödling

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555-38112](tel:+43%2050%20555-38112)

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17  
2340
Mödling