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| Logo AGES | |
| Hepatitis E | |
|  |  |
| 09.05.2025 07:52 Uhr | |

**Hepatitis
E**

**Hepatitis
E**

Last
change:
10.10.2023

**Profile**

The
hepatitis
E
virus
is
one
of
the
five
known
human
hepatitis
viruses
and
can
cause
inflammation
of
the
liver.

**Occurrence**

Worldwide.
Infections
with
the
hepatitis
E
virus
are
a
health
problem
especially
in
developing
countries.

**Pathogen
reservoir**

Contaminated
water,
domestic
and
wild
pigs,
red
deer

**Infection
route**

According
to
the
European
Food
Safety
Authority
(EFSA),
raw
or
insufficiently
heated
pork
is
the
main
cause
of
hepatitis
E
infections
in
humans.
Transmission
routes
also
include
drinking
water
contaminated
with
feces,
and
smear
infections
from
person
to
person
are
also
possible.

**Incubation
time**

2
weeks
to
2
months

**Symptoms**

Most
people
who
become
infected
with
hepatitis
E
show
no
symptoms
or
only
mild
symptoms
such
as
fatigue,
nausea,
vomiting,
upper
abdominal
pain,
fever

**Therapy**

There
is
no
specific
therapy

**Prevention**

There
is
no
vaccination

**Situation
in
Austria**

In
Austria,
47
human
cases
of
hepatitis
E
were
reported
in
2022.

At
the
Institute
of
Veterinary
Investigations
Mödling
of
AGES,
we
have
conducted
investigations
on
the
occurrence
of
hepatitis
E
genotype
3
antigen
and
antibodies
in
domestic
and
wild
pigs
in
recent
years.
An
investigation
of
1,152
slaughter
pigs
from
72
conventional
farms
in
Austria
showed
that
hepatitis
E
virus
genome
could
be
detected
in
liver
or
faeces
of
64
pigs
(6
%)
from
30
farms.
Of
75
wild
pigs
tested,
hepatitis
E
virus
was
detected
by
PCR
in
17
(23
%).

**Technical
information**

The
hepatitis
E
virus
(HEV)
is
one
of
the
five
known
human
hepatitis
viruses.
Infections
with
the
hepatitis
E
virus
are
a
health
problem
especially
in
developing
countries.
For
a
long
time,
it
was
assumed
that
hepatitis
E
infections
in
humans
were
mainly
due
to
travel
in
Asia
and
Africa.
In
recent
years,
an
increasing
number
of
cases
of
hepatitis
E
infection
have
also
been
detected
in
Western
European
countries,
mostly
due
to
genotypes
different
from
those
in
Africa
and
Asia.

Hepatitis
E
virus
(HEV)
is
a
small,
non-enveloped,
single
and
positive
stranded
RNA
virus
with
a
genome
length
of
about
7.2
kb,
a
diameter
of
about
30
-
32
nm
and
belongs
to
the
family
of
Hepeviridae.
The
virus
reacts
very
labile
at
high
salt
concentrations,
fast
freezing
and
thawing
processes
as
well
as
at
heat.
A
total
of
4
human
genotypes
of
the
hepatitis
E
virus
can
be
distinguished.
Genotype
III
and
IV
have
also
been
found
in
pigs.
The
presence
of
HEV
genotype
3
(HEV-3)
RNA
in
faeces,
serum
and
organ
samples
as
well
as
the
high
frequency
of
anti-HEV
antibodies
in
pigs
have
already
been
described
in
many
developed
Asian,
North
American
and
also
in
European
countries.
This
suggests
a
wide
distribution
of
HEV-3
within
domestic
and
wild
pig
populations.

**Host
animals,
risk
to
humans**

The
extent
to
which
infection
of
pigs
causes
infection
of
humans
in
the
presence
of
inadequate
hygienic
precautions
has
not
yet
been
scientifically
investigated
in
detail.
The
detection
in
faeces
and
organs
of
pigs
allows
the
conclusion
that
the
zoonotic
potential
of
hepatitis
E
in
Austrian
domestic
pigs
may
well
be
relevant
for
public
health
in
order
to
assess
a
possible
risk
for
occupational
risk
groups
such
as
hunters,
butchers
or
even
veterinarians
or
consumers.
Furthermore,
the
virus
has
been
detected
in
chickens,
rabbits,
rats,
mongooses
and
deer.
There
are
also
indications
that
the
hepatitis
E
virus
can
occur
in
cattle
and
sheep.

**Transmission**

In
a
scientific
opinion
published
on
11
July
2017,
the
European
Food
Safety
Authority
(EFSA)
identifies
raw
or
undercooked
pork
as
the
main
cause
of
hepatitis
E
infections
in
humans:
Over
21,000
infections
were
reported
in
EU
Member
States
between
2007
and
2017.
Cases
of
hepatitis
E
disease
mainly
affect
immunocompromised
individuals,
especially
transplant
patients.
Hepatocytes
(liver
cells)
are
considered
the
main
target
cells
of
hepatitis
E
viruses,
the
virus
particles
themselves
are
then
excreted
through
bile
and
stool
and
can
also
be
detected
in
wastewater.
The
viruses
enter
the
environment
with
pig
manure.
In
pigs,
perinatal
transmission
from
mother
sow
to
piglet
is
possible.

**Symptoms**

Most
people
infected
with
hepatitis
E
show
no
or
only
mild
symptoms
such
as
fatigue,
exhaustion,
fever,
nausea,
vomiting,
icterus,
upper
abdominal
pain.
Fulminant
courses
are
rare
(less
than
1%),
but
these
are
associated
with
a
high
mortality
rate.
When
cured,
there
is
usually
no
permanent
damage
and
the
disease
does
not
usually
become
chronic
(except
in
the
case
of
immunosuppression).
So
far,
no
clinical
changes
have
been
detected
in
pigs.
The
highest
excretion
rate
has
been
found
in
piglets
aged
1-3
months,
which
means
that
although
the
pig
does
not
contract
the
disease
itself,
it
plays
an
important
role
as
a
carrier.

**Therapy**

There
is
no
specific
therapy
for
HEV
infections.
Hygiene
must
be
observed
when
cutting
and
preparing
pork.
Thorough
hand
washing
is
considered
the
most
important
preventive
measure
in
food
preparation.
Since
the
virus
is
sensitive
to
heat,
safe
preparation
in
which
meat
is
well
heated
is
the
best
protection.

**Contact**

**Hepatitis
E
in
animals:
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for
Veterinary
Medicine
Mödling**

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