

# Spider cleared of causing flesh-eating ulcer

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Innocent: a white-tail spider (*Medical Journal of Australia*)

The white-tail spider, whose bite has been blamed for cases of flesh-eating ulcers for decades, has been declared innocent following methodical Australian research.

Not one of the 130 white-tail spider bite cases in the study, the first of its type ever conducted, had any evidence of necrotising of the skin, researchers report in this week's *Medical Journal of Australia* - a publication that was itself partly responsible for the original accusation.

Conducted by Dr Geoff Isbister, a clinical venom expert at the [University of Newcastle](#) and Dr Mike Gray of the [Australian Museum](#) in Sydney, only included bites where the spider responsible had actually been caught and given to medical practitioners.

Over the past 20 years the white-tail spider - with its legendary necrotic (flesh-eating) bite that has no anti-venom - has become deeply feared.

"That early association that was never proven, has grown into a myth - apparently 'hard' fact, which of course it never was," said Associate Professor Julian White from the Women's and Children's Hospital in Adelaide, on ABC Radio National's *Health Report*

In an accompanying editorial, White - one of the world's top toxicologists - describes the origin of the mistake as a paper on possible spider-bite necrosis in Australia which was presented at the International Society on Toxicology World Congress in Brisbane in 1982, which led the Australian journal to publish a follow-up article.

"Within about five years the popular association of these spiders with skin necrosis was well established," he writes.

This was despite several groups asking for more validity of the results.

The white-tail spider is a common hunting spider found throughout the world, and in many Australian homes.

It does not use a web, but searches for prey.

The pattern of the bite is local pain, with victims noticing they have been bitten, rather than the bite that is not felt and then goes on to develop necrotism.

The study looked at two species of white-tail spider, *Lampona cylindrata* (79 bites) and *L. murina* (51 bites), which are both commonly encountered species in southern and eastern Australia.

Cases were only included in the study if there was a clear history of bite, the spider was caught and was identified by an expert.

The spiders were either collected from the patient at the time, or they were mailed in, and kept at the Australian Museum.

None of the victims suffered from ulcers or from confirmed infection.

In general, the bites occurred in the warmer months in southern Australia, and indoors, either in the evening or at night.

Almost half of the bites were on the arm or leg, and a quarter were to hands and feet, while the remainder of bites were on the trunk or head and neck.

This differs from statistics of the bites from spiders in general, which are usually on the hands and feet, but this could be because the spiders were usually encountered between bedclothes, towels or in clothing.

The bites may not have caused necrosis, but they were painful, with the pain being worse than a bee sting in 27% of cases.

Symptoms lasted about 24 hours, and bites were red and itchy, with the redness and itchiness persisting in almost half of cases.

None of the victims developed necrotic ulcers or confirmed infections.

**The real culprits:** Two types of spider were originally suggested as the culprits for necrotising anachronism - the wolf spider and the white-tail spider.

Like the white tail, the wolf spider is also innocent, "The wolf spider [accusation] was based on previous reports from other parts of the world, particularly in Brazil where it was felt that wolf spider bites caused skin damage," said Research in Brazil that looked at the wolf spider found that the creatures were not responsible, explained White.

"The culprit turned out to be bites by recluse or fiddleback spiders - they are the only group of spiders that have been well documented as having a venom that can cause skin damage," he said.

Recluse and fiddleback spiders are not native to Australia, although some have been introduced.

"We have no idea how common they are," he said.

Because of their reclusive nature, it is hard to gauge how many there are here, although there have been definite recluse spider bites recorded in Adelaide.

In most cases of bites in Australia, the victim does not see what had bitten them.

"This has been a major stumbling block in developing a scientific understanding of the subject, because we don't really know what the cause is," he said.

The epidemiology of necrotism has never been studied, and it is uncertain if the cause is a bite.

White argues that some of the cases are actually caused by infection, and there is a serious risk of misdiagnosis of bite by the white-tail spider.

"It's actually doing the community quite a disservice by continuing that because possibly treatable conditions, sometimes serious conditions are overlooked," he said.