

# Web weaving skills provide clues to aging

July 2 2011

---



This web was woven by a 17-day-old spider, showing regular patterns. Credit: Mylène Anotaux

Young house spiders weave webs with perfect angles and regular patterns, but as they reach old age their webs deteriorate, showing gaping holes and erratic weaving.

By using spiders as a simple model this research may provide insight into how [age](#) affects behaviour in other organisms, including humans.

The reason web building skills are lost as spiders grow older may be due to degeneration of the [central nervous system](#). PhD researcher, Mylène

Anotaux, from Nancy University in France, says "Our next steps will be to understand whether age-induced changes in the central nervous system are behind the differences in behaviour we have found."

"Because of the importance of understanding the underlying behavioural mechanisms of ageing in humans, investigating simple animal models that assess ageing mechanisms is essential," says Miss Anotaux.



This web was woven by a 188 day old spider, showing irregularity and holes.  
Credit: Mylčne Anotaux

This research, which will be presented at the Society for Experimental Biology Annual Conference in Glasgow on Saturday 2nd of July, used a common European house spider *Zygiella x-notata*, its short life span (around 12 months) and simple [nervous system](#) making it an ideal organism to shed light on the complexities of how aging can affect behaviour.

The webs of the [spiders](#) were assessed throughout their lifetime using measures such as the regularity of web structure, angles between the strands and whether there were any holes.

Provided by Society for Experimental Biology

Citation: Web weaving skills provide clues to aging (2011, July 2) retrieved 24 April 2024 from <https://phys.org/news/2011-07-web-skills-clues-aging.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.