

Survivors of Joplin tornado develop rare infection

June 11 2011, By JIM SUHR and BILL DRAPER , Associated Press



FILE - In this May 24, 2011 file photo, a destroyed neighborhood is seen in Joplin, Mo., after a large tornado moved through much of the city. In the aftermath of the tornado, some people injured in the storm have developed a rare and sometimes fatal fungal infection so aggressive that it turned their tissue black and caused mold to grow inside their wounds. Scientists say the unusually aggressive infection occurs when dirt or vegetation becomes embedded under the skin. (AP Photo/Charlie Riedel, File)

(AP) -- In the aftermath of the Joplin tornado, some people injured in the storm developed a rare and sometimes fatal fungal infection so aggressive that it turned their tissue black and caused mold to grow inside their wounds.

Scientists say the unusually aggressive infection occurs when dirt or vegetation becomes embedded under the skin. In some cases, injuries that had been stitched up had to be reopened to clean out the contamination.

The [Centers for Disease Control and Prevention](#) said Friday that it was conducting tests to help investigate the infections, which are so uncommon that even the nation's largest hospitals might see only one or two cases a year.

"To my knowledge, a cluster like this has not been reported before," said Dr. Benjamin Park, head of the CDC team that investigates [fungal diseases](#). "This is a very rare fungus. And for people who do get the disease, it can be extremely severe."

Three tornado survivors who were hospitalized with the infection have died, but authorities said it was unclear what role the fungus played in their deaths because they suffered from a host of other serious ailments.

"These people had multiple traumas, pneumonia, all kinds of problems," said Dr. Uwe Schmidt, an infectious disease specialist at Freeman [Health System](#) in Joplin. "It's difficult to say how much the [fungal infections](#) contributed to their demise."

The infection develops in two ways: when the [fungal spores](#) are inhaled or when a tree branch or other object carrying the fungus pierces the flesh.

Most people who get sick by inhaling the spores already have weakened immune systems or diabetes. But healthy people can become sick if the fungus penetrates their skin. The fungus blocks off [blood vessels](#) to the infected area, causing tissue to turn red and begin oozing. Eventually it becomes black.

If diagnosed in time, the infection can be treated with intravenous medications and surgical removal of affected tissue. But it's considered exceptionally dangerous, with some researchers reporting fatality rates of 30 percent for people infected through wounds and 50 percent for

susceptible people who breathe it in.

Small numbers of cases have been reported after some disasters, but Park said it's the particular circumstance of the wound - not the disaster itself - that creates the risk.

The Missouri Department of Health and Senior Services has received reports of eight suspected deep-skin fungal infections among survivors of the May 22 twister, which was the nation's deadliest single tornado in more than six decades. All of the patients had suffered multiple injuries.

Also Friday, Joplin officials raised the death toll from the twister to 151, a figure that includes the recent deaths of the three people who had the fungus.

Schmidt said his hospital treated five Joplin tornado victims for the infection, which is formally known as zygomycosis (zy'-goh-my-KOH'-sihs). In 30 years of medical practice, he said, he had seen only two cases. Both involved patients with untreated diabetes.

Joplin officials say more than 1,100 people have been treated for injuries after the storm, many of them from objects sent flying by the twister.

"These were very extensive wounds," Schmidt said. "They were treated in the emergency room as quickly as possible."

A week after the tornado, patients began arriving with fungal infections.

Doctors had to reopen some wounds that had been stitched closed because the injuries had not been adequately cleaned, Schmidt said.

After the infections set in, doctors "could visibly see mold in the

wounds," Schmidt said. "It rapidly spread. The tissue dies off and becomes black. It doesn't have any circulation. It has to be removed."

The fungus "invades the underlying tissue and actually invades the underlying blood vessels and cuts off the circulation to the skin," he said. "It's very invasive."

©2011 The Associated Press. All rights reserved. This material may not be published, broadcast, rewritten or redistributed.

Citation: Survivors of Joplin tornado develop rare infection (2011, June 11) retrieved 4 May 2024 from <https://medicalxpress.com/news/2011-06-survivors-joplin-tornado-rare-infection.html>

<p>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.</p>
--