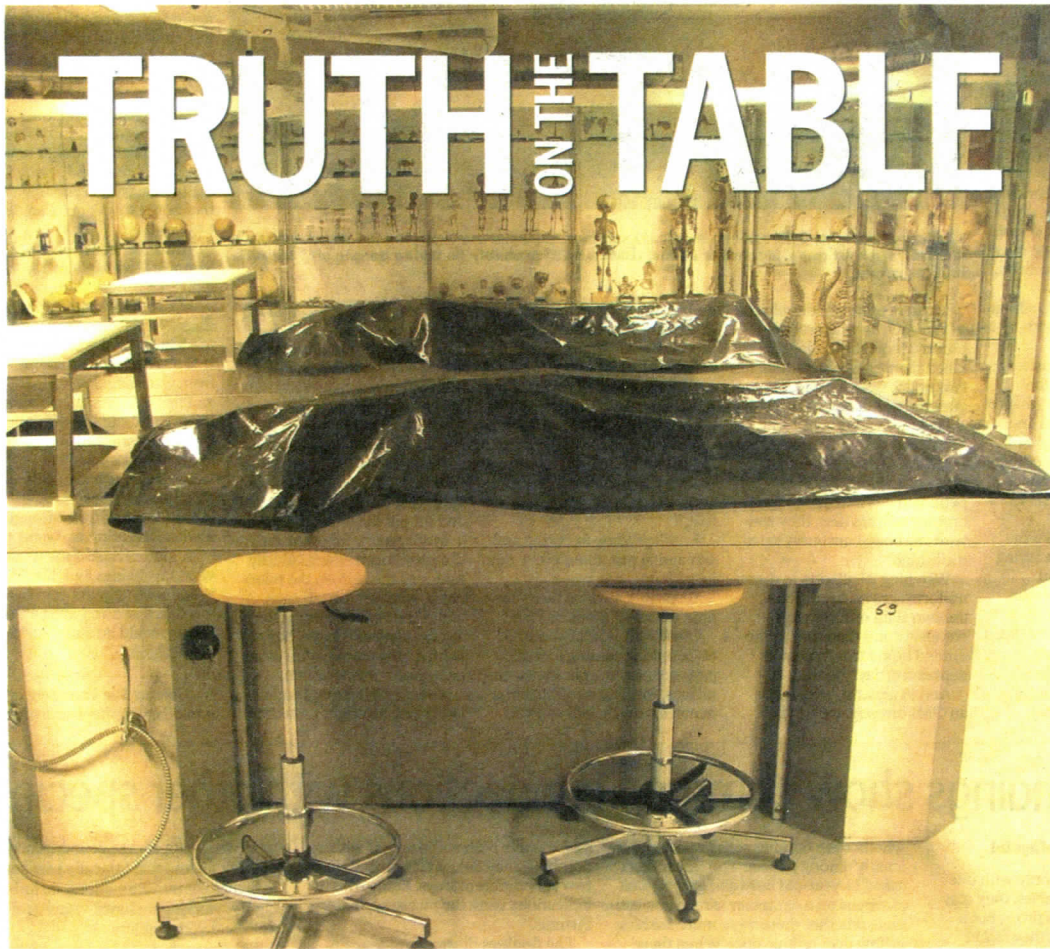




14,000 deaths in New Mexico each year **5,000** deaths investigated by OMI in N.M. every year **3,000** bodies brought to Albuquerque for autopsies



Dreamstime.com

Hospitals' economic engine on road to disaster?

With boom of CT scans comes rising concern of radiation's effect on nation

By Alan Zarembo
Los Angeles Times

When Maureen Scanlan had a painful kidney stone episode four years ago, she was pleased that her doctor ordered an annual regimen of CT scans to monitor her condition.

The scans involved hundreds of razor-thin X-rays of her innards stitched together by a computer into stunningly detailed 3-D images showing the size and location of the stone, down to a fraction of a millimeter.

What she didn't realize was that the perfection of the images was a result of a radiation dose equivalent to more than a dozen standard abdominal X-rays — all for a condition that though painful is relatively mundane.

"I never thought twice about it," said the 38-year-old mother of two from Westfield, N.J., who since learning of the radiation has been worried that the scans may have played a role in two miscarriages. "I knew there was radiation, but I didn't realize how strong it was."

Scanlan is part of an explosion in the use of one of the most revolutionary medical technologies of the last half century.

Introduced in the 1970s, computed tomography scans have become a standard procedure for such common problems as kidney stones, persistent headaches and appendicitis.

U.S. doctors ordered 68.7 million CT scans last year, more than triple the number in 1995, according to IMV Medical Information Division, a medical market research group in Des Plaines, Ill.

Generating tens of billions of dollars in billing each year, CT scanning has become an economic engine for hospitals and doctors, and the once-exotic million-dollar devices are starting to be found in private practices.

"It's gotten into the culture of doctors," said Geoffrey Rubin, a Stanford University radiologist.

But with the boom has come a rising concern that the abundant use of radiation is beginning to have a subtle effect on the health of the nation.

Although the risk of a single CT scan to an individual is minuscule, even a tiny increase in radiation exposure spread over a large population can eventually add up to tens of thousands of cancer deaths a year.

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Photo courtesy of Vancouver General Hospital

A CT scan of hands shows vivid detail. CT scans have become a standard diagnostic procedure for a variety of ailments, but they expose patients to far more radiation than other tests.

SANTA FE TEENS EXPAND THEIR 'CSI' EDUCATION AND LEARN WHAT REALLY GOES ON IN THE OFFICE OF THE MEDICAL EXAMINER

By Sue Vorenberg
The New Mexican

The 50 or so teens squirmed, giggled and gagged as they watched an autopsy video that even the word gross doesn't quite cover.

They came Wednesday night to the Georgia O'Keeffe Education Annex mostly to get class credit through the Santa Fe Alliance for Science's Science Cafe program.

But they also came to learn what the Office of the Medical Examiner actually does, compared with the flashy high-tech world of the TV show *CSI*.

"*CSI* has drawn a lot of interest in our profession, but it's also caused us some harm," said Tim Stepetic, business manager for OMI, who came to talk to the kids. "The more people know what we do and how we do it — it makes our jobs easier."

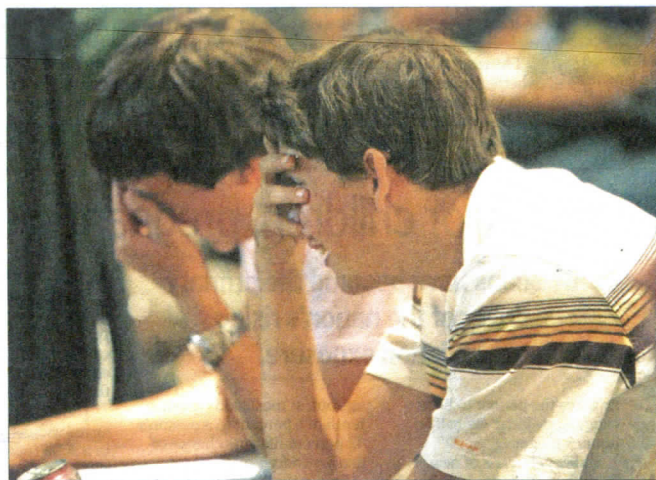
David Dean, a 14-year-old Monte del Sol student, wasn't quite sure what the presentation would be like before it started.

"This one, I hope, is not hands-on," Dean joked.

A *CSI* fan, Dean said he probably had the wrong impression about OMI, but was ready to learn the truth.

"I've been really eager to go to this one," he said of the presentation, called "Autopsy/Investigation 1.01 and the *CSI* Effect."

Dean, who's been to several other Science Cafes, mostly goes for school credit, but he's also grown a newfound appreciation of science after checking out a few of



Luis Sánchez Saturno/The New Mexican

David Ovitsky, 17, covers his eyes during an autopsy video while participating in the 'Autopsy/Investigation 1.01 and the *CSI* Effect' presentation given by Tim Stepetic, Office of the Medical Examiner business manager. The teens get credit for the presentation through the Santa Fe Alliance for Science's Science Cafe program.

them, he said.

"Mainly it's an obligation toward my grades, but I also like these, and I'm also starting to like science," Dean said. "I like Earth science the most, I think."

In Stepetic's part of the presentation, before showing the video that will likely stick with the kids for a long time, he

talked about the highs and lows of being a medical examiner.

"Our main job is death investigations," Stepetic said. "We look at unusual, suspicious, violent and unattended deaths."

Each year, there are about 14,000 deaths in New Mexico, and of those, OMI inves-

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444 Drug overdoses came through OMI's doors in 2007

460 traffic fatalities investigated by OMI in 2007

388 suicides investigated by OMI in 2007

Table: Overdoses, traffic accidents make up most deaths

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stigates about 5,000 of them from all over the state. Examiners from the office bring about 3,000 of those back to Albuquerque for some sort of autopsy, he said.

"We work every day, we work autopsies on Saturdays and Sundays, and we generally see seven to eight cases a day," Stepetic said.

In his 10 years at New Mexico's OMI, Stepetic has had four friends die and come through his doors. When that happens, he or any other staff member that knew the person gets the day off, he said.

"No questions asked on that, but nobody abuses it," Stepetic said.

The two largest categories of death the office sees are drug overdoses and traffic accidents.

In 2007, there were 444 overdoses and 460 traffic fatalities, he said.

Suicides also make up a large portion of the deaths, with 388 in 2007, he said.

"In suicides we're consistently in the top five in the country," Stepetic said. "It's usually older men, but teens and younger men are on the rise."

That may be because of the state's rural geography and a lack of mental support services, he added.

"Without guns, alcohol or drugs, we'd probably be laying people off," Stepetic said.

Homicide deaths, however, are much harder to bear. And the office generally sees between 150 and 200 of them a year.

"They hit you pretty hard emotionally, and they take more work," Stepetic said.



Luis Sánchez Saturno/The New Mexican

Tim Stepetic, right, Office of the Medical Examiner business manager, led Wednesday night's lecture. 'Without guns, alcohol or drugs, (OMI would) probably be laying people off,' Stepetic told the group.

Clusters of homicides are the worst, such as when schizophrenic John Hyde allegedly killed five people, including two police officers, in Albuquerque in August 2005.

Hyde was found unfit to stand trial.

"Police officers, they have a very compelling tradition," Stepetic said. "When one of their brother officers dies, they stay with the body constantly up to the burial."

Watching 25 officers in dress uniforms crowd his office as the two slain officers were autopsied and then sent to the funeral home was "a heavily depressing day," he said.

And in general, working as an OMI investigator can be a

depressing job, but the staff does its best to lighten the mood whenever possible, in a respectful way, Stepetic said.

"We have a cooler with about 45 to 50 bodies in it," Stepetic said. "Every Christmas, we decorate that cooler by stringing lights around it. It's respectful, but it's also a matter of keeping your sanity to do things like that."

Families come in crying and screaming just about every day, he added.

"Probably all of us there are a little whacko," Stepetic said.

OMI has a staff of about 60 people, including forensic pathologists, morphology technicians, investigators, business managers and social workers

who function as grief counselors, he said.

After his discussion, he aired the 45-minute autopsy video, which showed an investigation into a drug overdose case and a full dissection of a man.

The room was peppered with 'ughs' and 'ohs' as the students watched a forensic pathologist peel back the man's skull cap and lift out his brain.

More groans followed as the pathologist systematically removed the skin on the man's chest, removed his rib cage and dissected each organ looking for signs of trauma, heart failure, lung damage and other potential causes of death.

The man's liver was large, indicating he might have drank

SCIENCE CAFES

For more information on the Santa Fe Alliance for Science's educational programs for teens, visit www.sfafs.org.

excessively, and his lungs were black on the surface, indicating he was a smoker.

The worst bit, many students agreed, was when the pathologist emptied the man's stomach contents into a bucket and noted that they smelled like alcohol.

"It was gross," said Tony Baca, a 15-year-old student at Santa Fe High School. "I never want to do that job."

But at least one person in the crowd wasn't quite so disturbed.

Sarah Wood, a 17-year-old Santa Fe High student, said while working at OMI probably wasn't something she'd want to do, she still wanted to go into a medical specialty eventually.

"I learned more anatomy from watching that, for sure, and that you can tell a person's history without knowing them, like if they smoked and how long," Wood said.

The video was certainly gross, but she was proud of herself for making it through it without getting ill, Wood said.

"It kind of makes me wonder what my insides look like," Wood said. "I guess getting through that also tells me that I really could do some sort of medical job."

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