

HEALTH BREAKTHROUGH: THE RIGHT BITE

New Technology That's Allowing Dentists to Spot Bad Bites and Prevent Tooth Breakage.

Air Date: 1/29/2003 4:00:00 PM

Reporter: Dr. Max Gomez

When dental patient Olga Maggio had a crown placed over a bad tooth, she thought her dental troubles were over. But it was only the beginning!

"I always had problems trying to adjust the bite. It never felt good. My jaw started hurting and it started popping and clicking," she says.

Maggio's pain was due to a misaligned bite.

"Ideally when we bite together we like all teeth biting at the same amount of pressure, all at the same time... rarely does that happen," says **Dentist Clifford Williams**.

According to **Dr. Williams** about 80 percent of Americans have a bad bite. That puts them at risk for broken teeth, TMJ and other problems. Biting down on carbon paper helps mark trouble areas, but saliva can smear the ink, which leaves room for error.

Now, more and more dentists are using a computer-based technology called **TEK-scan** to spot bad bites. The Tekscan Occlusal Imaging and Analysis System was invented by researchers at Tufts University and is manufactured by Tekscan in Boston.

How does it work?

- Patients bite down on a thin, flexible sheet.
- The sheet is embedded with thousands of tiny sensors that send bite pressure information directly to a computer, which analyzes the data.
- The information tells the dentist where a bite may be off and where a patient is in danger of damaging the mouth.
- Red means a lot of pressure and the most forceful bite. "Those forces can range anywhere from 200 to 800 pounds per-square-inch. That's a lot of pressure," says **Dr. Williams**.

He adds, "When the patient bites you can see the graphic display on the computer."

During Maggio's test, it showed that she is biting extremely hard on the left side - where her crown is. Now, armed with that information, Dr. Williams can accurately adjust her bite and relieve her pain -- giving her something to smile about.

More info: According to Maggio, the actual strip tasted like cellophane and wasn't that uncomfortable.

Dr. Williams says that normal dental x-rays do not show misaligned bites.