Gaming doctors shape up in surgery

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ALL THOSE years on the couch playing Nintendo and PlayStation appear to be paying off for surgeons.

Researchers found that US doctors who spent at least three hours a week playing video games made about 37 per cent fewer mistakes in laparoscopic surgery and performed the task 27 per cent faster than their counterparts who did not play video games.

"I use the same hand-eye coordination to play video games as I use for surgery," said Dr. James "Butch" Rosser, 49, who demonstrated the results of his study at Beth Israel Medical Centre at Harvard.

Laparoscopic surgery - using a tiny camera and instruments controlled by joysticks outside the body - is performed on just about any part of the body, from an appendix to the colon and gall bladder.

The minimally intrusive surgery involves making tiny keyhole incisions, inserting a mini-video camera that sends images to an external video screen, with the surgical tools remote-controlled by the surgeon watching the screen. Surgeons can now practice their techniques through video simulation.

Rosser said the skill needed for laparoscopic surgery is "like tying your shoelaces with 3-foot-long chopsticks".

The study on whether good video game skills translate into surgical prowess was based on testing 33 doctors - 12 attending physicians and 21 medical school residents who participated from May to August 2003.

Each doctor completed three video game tasks that tested such factors as motor skills, reaction time and hand-eye coordination.

The study "landmarks the arrival of Generation X into medicine," said the study's co-author, Dr. Paul Lynch, a Beth Israel anesthesiologist who has studied the effects of video games for years.

Kurt Squire, a University of Wisconsin researcher of video game effects on learning, said that "with a video game, you can definitely develop timing and a sense of touch, as well as a very intuitive feel for manipulating devices".

Squire, who was not involved in Rosser's project, said applying such games to surgery training "could play a key role in preparing medical health professionals".

Beth Israel is now experimenting with the application of the findings.

Rosser has developed a course called Top Gun, in which surgical trainees warm up their coordination, agility and accuracy with a video game before entering the operating room.

"It's like a good football player," Rosser said, "you have to warm up first."

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