

# Skills course quickly and significantly sharpens rarely used military surgeons' skills

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Military surgeons must maintain a broad set of surgical skills to care for combat-related injuries, but during times of peace, these skills are rarely put to use. However, according to a new *JAMA Surgery* study, a two-day

trauma skills course can significantly improve their proficiency and ensure they are able to continue providing optimal trauma care in combat.

The study, "Surgical Skills Training and Assessment of Competency," was led by researchers at the Uniformed Services University of the Health Sciences (USU) and published Sept. 15.

While [military surgeons](#) are required to sustain a multitude of life-saving [trauma](#) surgical skills, an ongoing concern is whether they are able to keep those skills sharp over time when not in use. USU researchers measured a group of 65 military general surgeons' trauma skills, following their completion of a rigidly standardized surgical skills curriculum.

The course was designed to teach and test the surgeons on 24 life-saving trauma surgical procedures, as measured by their confidence, knowledge, skills, abilities, and independent performance. The curriculum followed a rigorous performance assessment for each participant, and was also designed based on best practices in experiential learning. Over two days, each participant was the primary surgeon for all 24 procedures, and four different surgeons independently evaluated the participants, ensuring a comprehensive and objective assessment of the participants' abilities.

After the surgeons completed the course, the researchers measured the surgeons' accuracy and independence in conducting each of the procedures. Ultimately, all of the surgeons significantly improved their trauma skills in both accuracy and independence, with nearly all being able to accurately and independently perform all 24 procedures after the course. The course also increased the surgeons' confidence and, three months after the training, the surgeons reported that they were able to significantly transfer their skills to other procedures.

"The skills taught in this course could also be applied to the care of trauma victims, not just service members in combat, but for civilians in trauma centers, including those in rural and humanitarian settings, or even in times of disasters," said Dr. Mark Bowyer, the study's corresponding author and professor of Surgery at USU.

The course could also quickly improve the currency and competency of surgeons, prior to a rapid deployment to a combat environment, Bowyer said. The curriculum design and assessment model could also be useful for competence for other members of the deployed medical team.

**More information:** Mark W. Bowyer et al, A Novel Paradigm for Surgical Skills Training and Assessment of Competency, *JAMA Surgery* (2021). [DOI: 10.1001/jamasurg.2021.4412](https://doi.org/10.1001/jamasurg.2021.4412)

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