

## Tissue-Engineered Skin Substitutes: Making a Difference in Wound Healing and Skin Disease

TORONTO, CANADA, November 19, 2024 /EINPresswire.com/ -- Tissue-engineered skin substitutes are emerging as an important tool in skin disorders, providing patients with new options for treating challenging wound care cases.



Tissue-engineered skin substitutes are transforming dermatology by bridging the gap between traditional wound care and surgical approaches."

Kaitlyn Ramsay, PhD

In this new study in <u>SKIN: The Journal of Cutaneous</u> <u>Medicine</u>. Dr. Kaitlyn Ramsay and her coauthors analyzed three decades of studies on synthetic and lab-grown skin substitutes used in human clinical trials. These substitutes, which mimic the structure and function of natural skin, address a wide range of conditions, including burns, diabetic ulcers, and chronic wounds. Products like Integra and Dermagraft were found to improve wound healing, while others like Apligraf demonstrated a reduction in infection risk and enhanced tissue regeneration.

The review also explored recent innovations, including the use of 3D bioprinting and the incorporation of stem cells into skin substitutes. These advancements allow for more personalized treatments, improving integration with the patient's tissue and reducing complications. However challenges such as high production costs and the need for better long-term safety data still exist. Despite these hurdles, tissue-engineered skin substitutes offer a promising pathway for improving patient outcomes in cases where traditional methods fall short.

<u>SKIN: The Journal of Cutaneous Medicine</u> is a peer-reviewed online medical journal that is the official journal of The National Society for Cutaneous Medicine. The mission of SKIN is to provide an enhanced and accelerated route to disseminate new dermatologic knowledge for all aspects of cutaneous disease.

For more details, please visit www.jofskin.org or contact jofskin@gmail.com.

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