Adipocyte Secreted Factors Influence Fibroblast Activity In-Vitro

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Fat Cells (Adipocytes) Have Many Roles in the Body

• Insulation
• Thermoregulation
• Hormonal Regulation
• Surgeons have used fat for Wound Healing
  • How and why does this work?

https://ambrosecelltherapy.com/why-adipose/
Isolating Secreted Factors From Adipocytes

- Adipocyte Spheroids
- Dermal Fibroblasts
- Adipocyte Conditioned Medium
Adipocyte Conditioned Medium Promotes Fibroblast Migration Speed
Adipocyte Conditioned Medium Promotes Fibroblast Contractility

*Fibroblasts treated with ACM compacted gels to a greater extent*
Fibroblasts Convert to Myofibroblasts When Treated With Adipocyte Conditioned Medium

- Cell Nuclei
- αSMA: known marker for myofibroblasts
Adipocyte Conditioned Medium Promotes Fibroblast Collagen Production
Future Directions: Fat and Wound Healing

• Better understanding of fat tissue in wound healing
• Manipulate fat tissue to promote healing
• Development of fat-related wound healing treatments

https://www.medicalnewstoday.com/articles/319678.php