

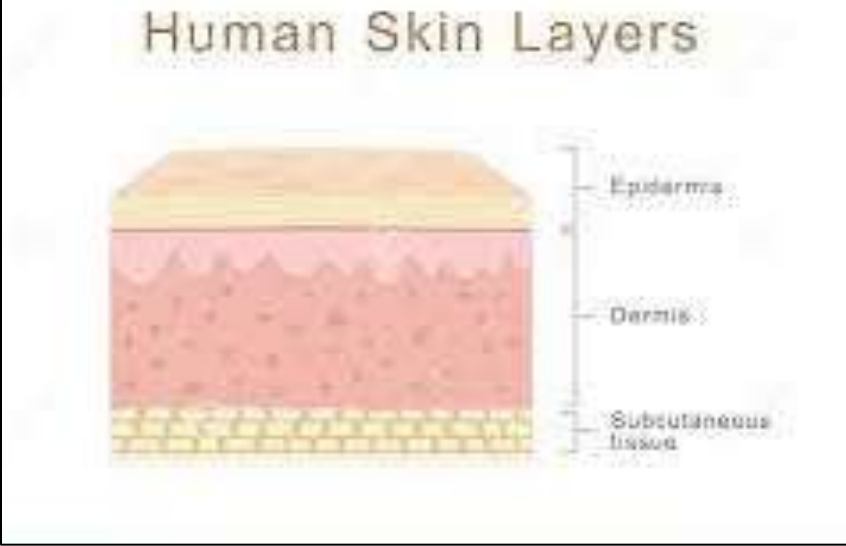


**SERGIO MAZZEI**   
WOUND CARE



## Three Years' Experience of Biosynthetic Cellulose Dressing for second degree burn

## Skin and subcutaneous tissue

- Contact with environment
  - Five layers
  - The melanin gives the color to the skin
  - It has got keratin, a water repellent protein
- 
- The diagram, titled "Human Skin Layers", shows a cross-section of the skin. It is divided into three main layers: the Epidermis (top, thin, yellowish), the Dermis (middle, thick, pinkish-red), and the Subcutaneous tissue (bottom, yellowish). The Epidermis is further divided into several sub-layers, and the Dermis contains various structures like hair follicles and blood vessels.
- It doesn't contain cells
  - Contains nerves for sensation of pain, pressure, touch and temperature
  - It is composed by collagen that it is important for the wound healing
  - Collagen makes the skin stretchable and elastic



مستشفى الزهراء دبي  
AL ZAHRA HOSPITAL DUBAI  
Care in Style رعاياة راقية

SERGIO MAZZEI  
WOUND CARE

# Nanostructure

## Replaces the use of animal-derived products for burn

### Biosynthetic Polimer from sugar cellulose

EpiProtect® is a biosynthetic cellulose dressing indicated for the treatment of superficial burns and the dressing of deep burns

It is manufactured by microorganisms. The microorganisms produce cellulose. This cellulose is then processed in the factory



[www.drsergiomazzei.health](http://www.drsergiomazzei.health)

# Nanostructure

Replaces the use of animal-derived products for burn

Biosynthetic Polimer from sugar cellulose



- Collagen mimicking nanostructure
- Moist wound healing
- Impermeable to bacteria
- Hemostatic
- Prevents fluid loss, no exudates

# Nanostructure

## Replaces the use of animal-derived products for burn

- Adheres and conforms to the wound
- Easy to apply and easy to cut
- Near total transparency, easy monitoring
- Allows the body to control the microenvironment
- Replaces the need of animal or human tissue
- Apply only once, on superficial burns/wounds
- Breathable
- Fully compatible with antibiotics





# Nanostructure

## Replaces the use of animal-derived products for burn

- 41 Y-old fireman
- Second degree thermal burn
- Surgery after 7 days from the accident
- Close follow every 2 days
- Second surgical step after 15 days from the accident
- Discharged in 32 days



# Nanostructure

## Replaces the use of animal-derived products for burn

- 2 Y-old young boy
- Second degree thermal burn treated in another H.
- Surgery after 5 days from the accident
- Close follow every 3 days
- Discharged in 28 days



# Nanostructure

## Replaces the use of animal-derived products for burn

- 10 Y-old young boy
- Second degree thermal burn
- Surgery after 4 days from the accident
- Close follow every 3 days
- Discharged in 34 days





# Nanostructure

## Replaces the use of animal-derived products for burn

- 13 Y-old young boy
- Second degree thermal burn
- Day after the accident
- Close follow every 3 days
- Discharged in 20 days



# Nanostructure

## Replaces the use of animal-derived products for burn

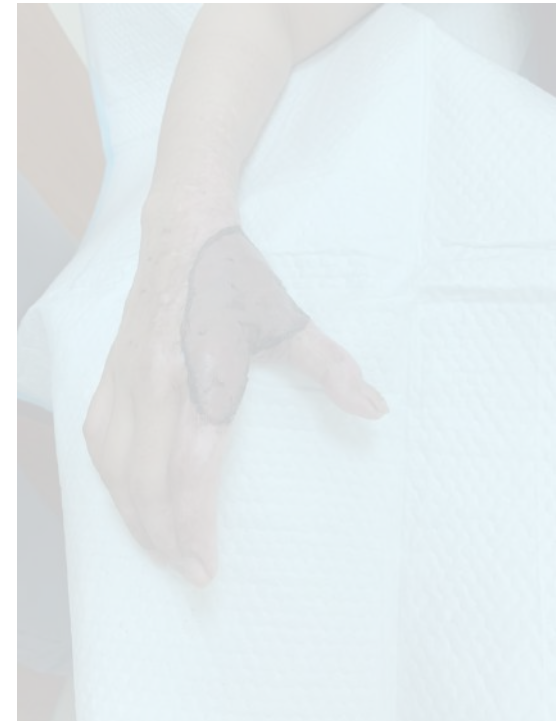
- 34 Y-old lady
- Second degree thermal burn
- Referred after 14 days from the accident.
- Surgery after 18 days from the accident
- Close follow every 2 days.
- Refused HBOT
- Initial retractive scar after 4 months. Skin graft





# Nanostructure

Replaces the use of animal-derived products for burn



# Nanostructure

## Replaces the use of animal-derived products for burn

### Conclusion

- 7 patient have been treated
- The wounds have been reduced in size, giving elastic tissue with no retractive scar.
- One patient required plastic surgical procedure, having a dermal-epidermal skin grafting, due to the retraction of the scar after one month from the closure of the wound
- Space for diabetic foot ulcer ?

**The quality of the result depends on the timing of the application. A delay of the application could lead to a failed of the result in term of closure of the wound and quality of the scar.**





مستشفى الزهراء دبي  
AL ZAHRA HOSPITAL DUBAI  
Care in Style رعايا راقية

SERGIO MAZZEI  
WOUND CARE

[www.drsergiomazzei.health](http://www.drsergiomazzei.health)



Al Das Medical Clinic

Palm Jumeirah Shoreline #10



مستشفى الزهراء دبي

AL ZAHRA HOSPITAL DUBAI

Care in Style

رعايا راقية