Principles of Therapy Approach

Safety and Simplicity

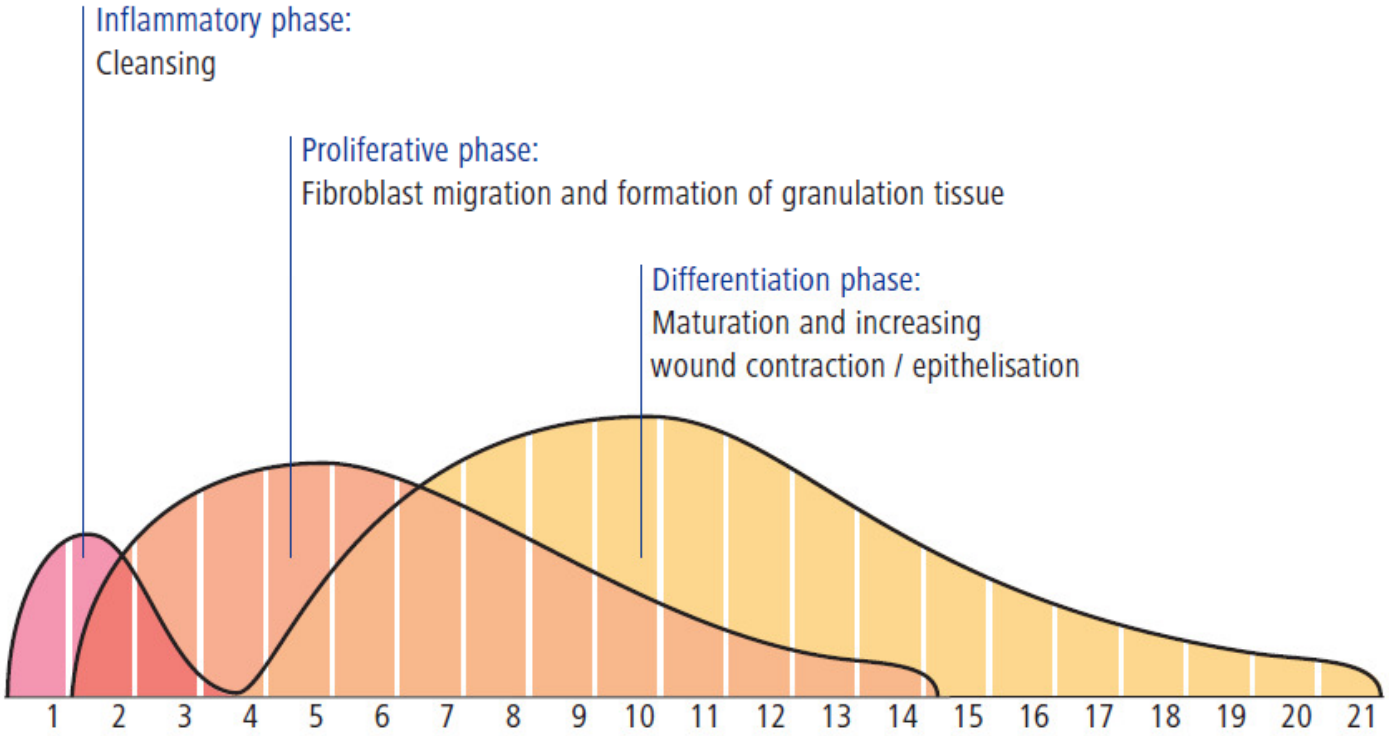
How do you treat this?

Outline

1. Phases of Wound Healing
2. The HARTMANN Therapy Approach
3. Supporting Evidence

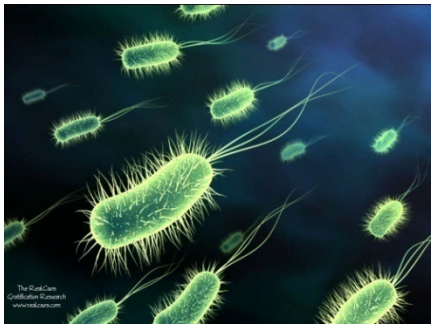
Phases of Wound Healing

Schematic diagram of the timing of the wound healing phases:

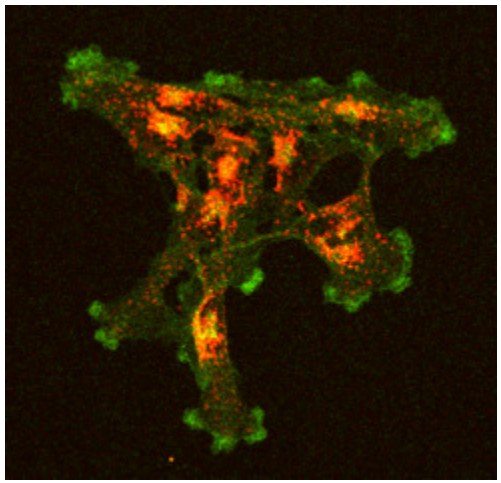


Cleansing Phase in Chronic Wound

Bacteria



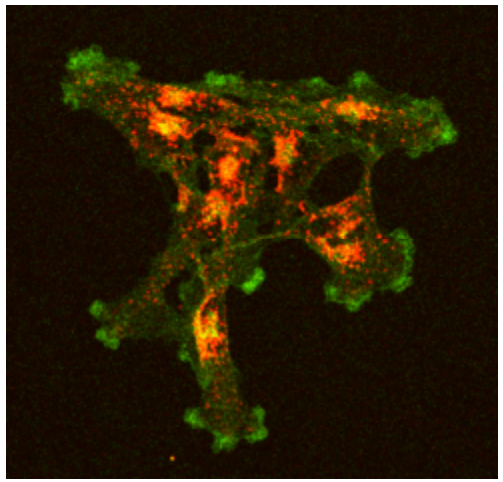
Alkaline pH



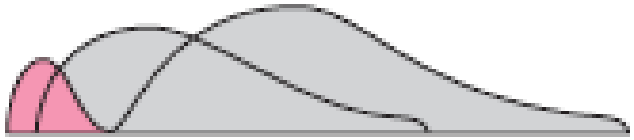
Matrix Metalloproteinase

MMPs (Matrix- Metallo- Proteinase)

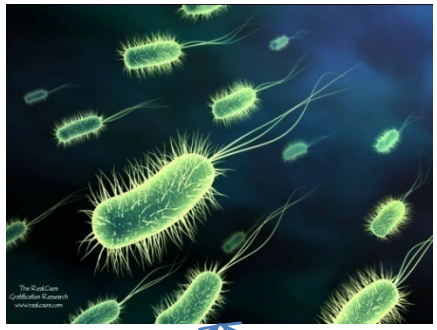
- Enzymes which cleave (proteins) and growth factors
- Are located between the cells (matrix)
- Require bivalent (metal) ions (e.g. Zn) in order to be functional
- Indispensable for the healing process (rebuilding processes)
  - Secreted as a response to wounding
- Excessively high concentrations (activities) impair the healing process (decomposition predominate).



Cleansing Phase



Bacteria



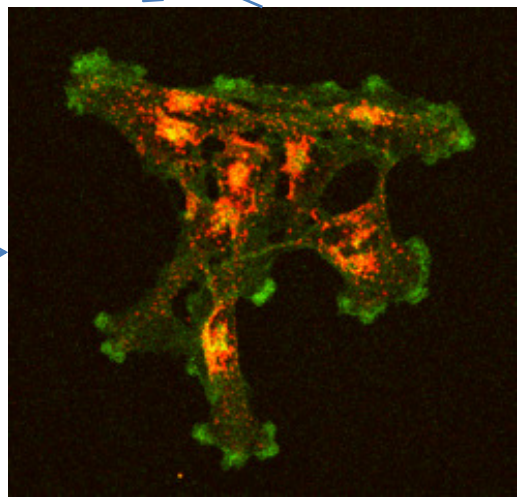
1. Toxin, Ammonia, etc

2. Fuel

3. Nutrients and Wounding

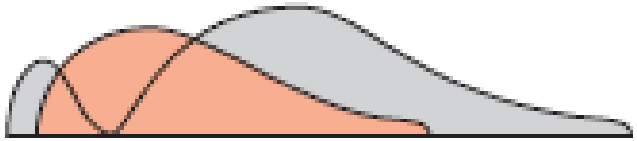
Alkaline pH

2. Fuel

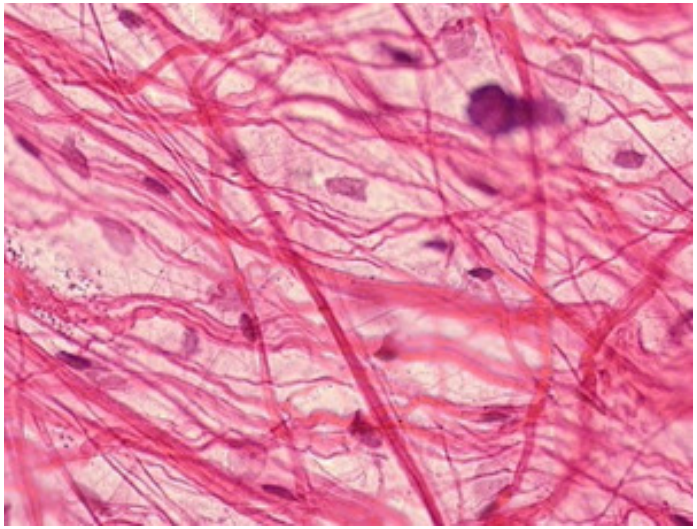


MMP

Granulation Phase



- Collagen bed formation
  - Temporarily closes the wound

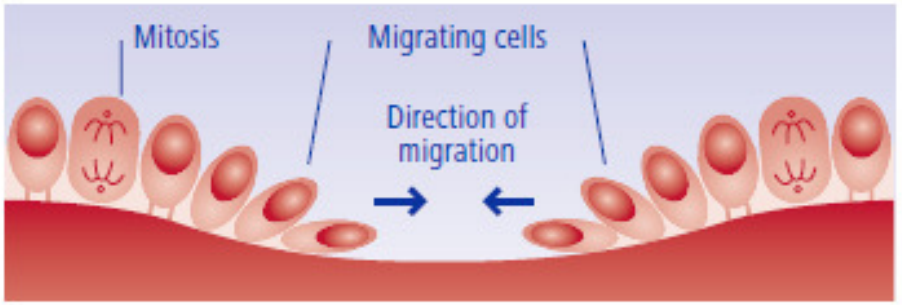


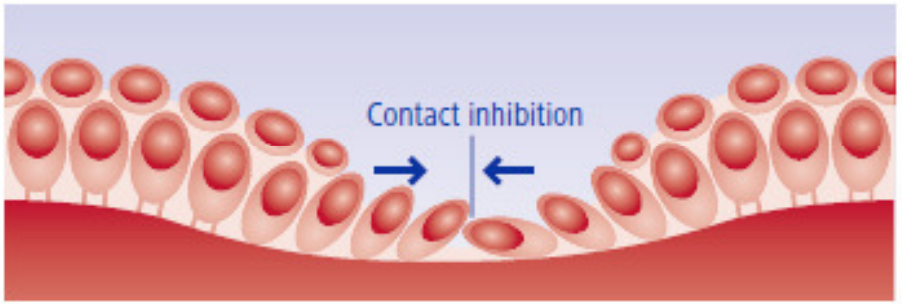
Indiana University A215 Virtual Microscopy

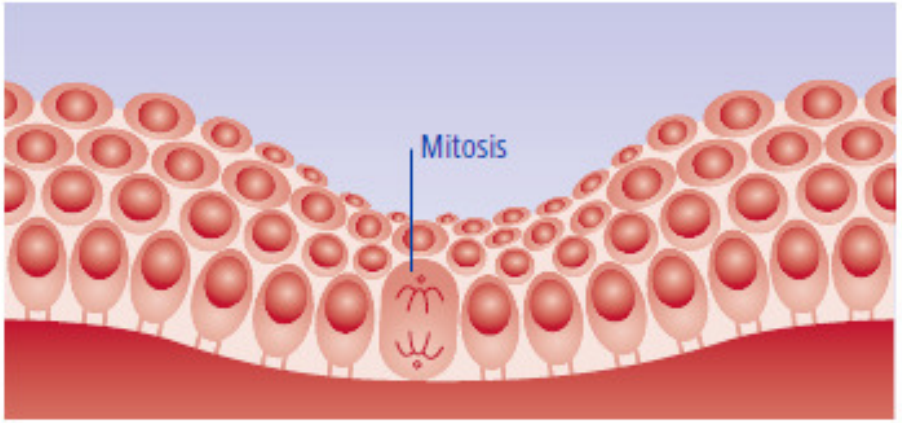
Essential to continuously regulate moisture

Epithelialization Phase

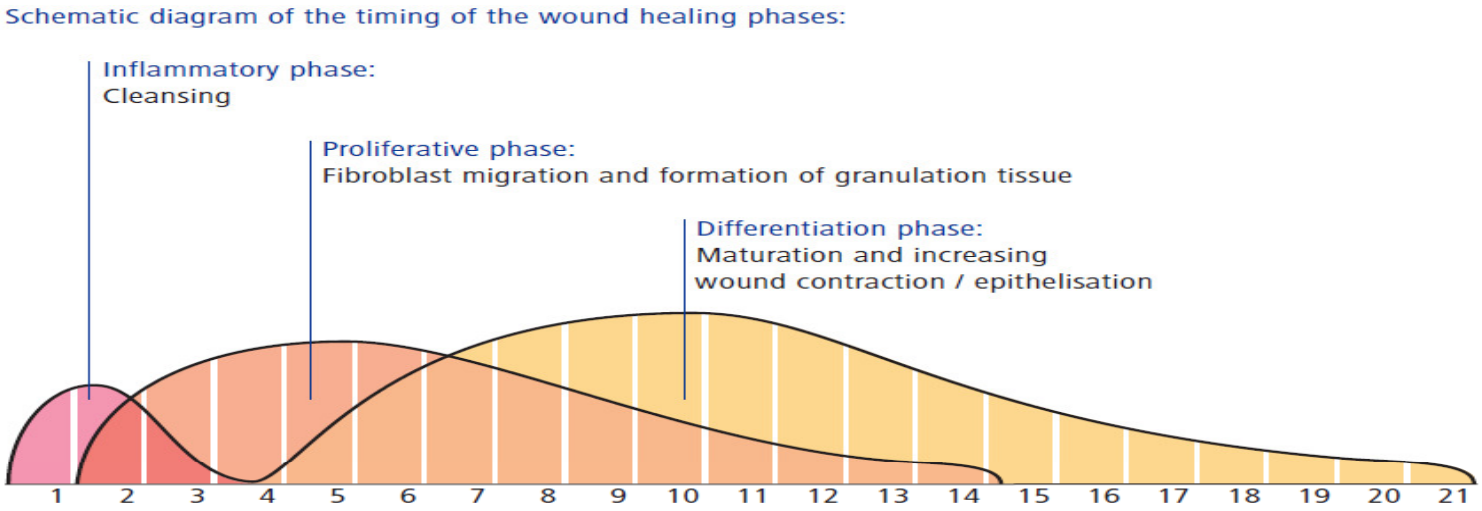
- Migration toward centre
- Moist sliding surface is essential





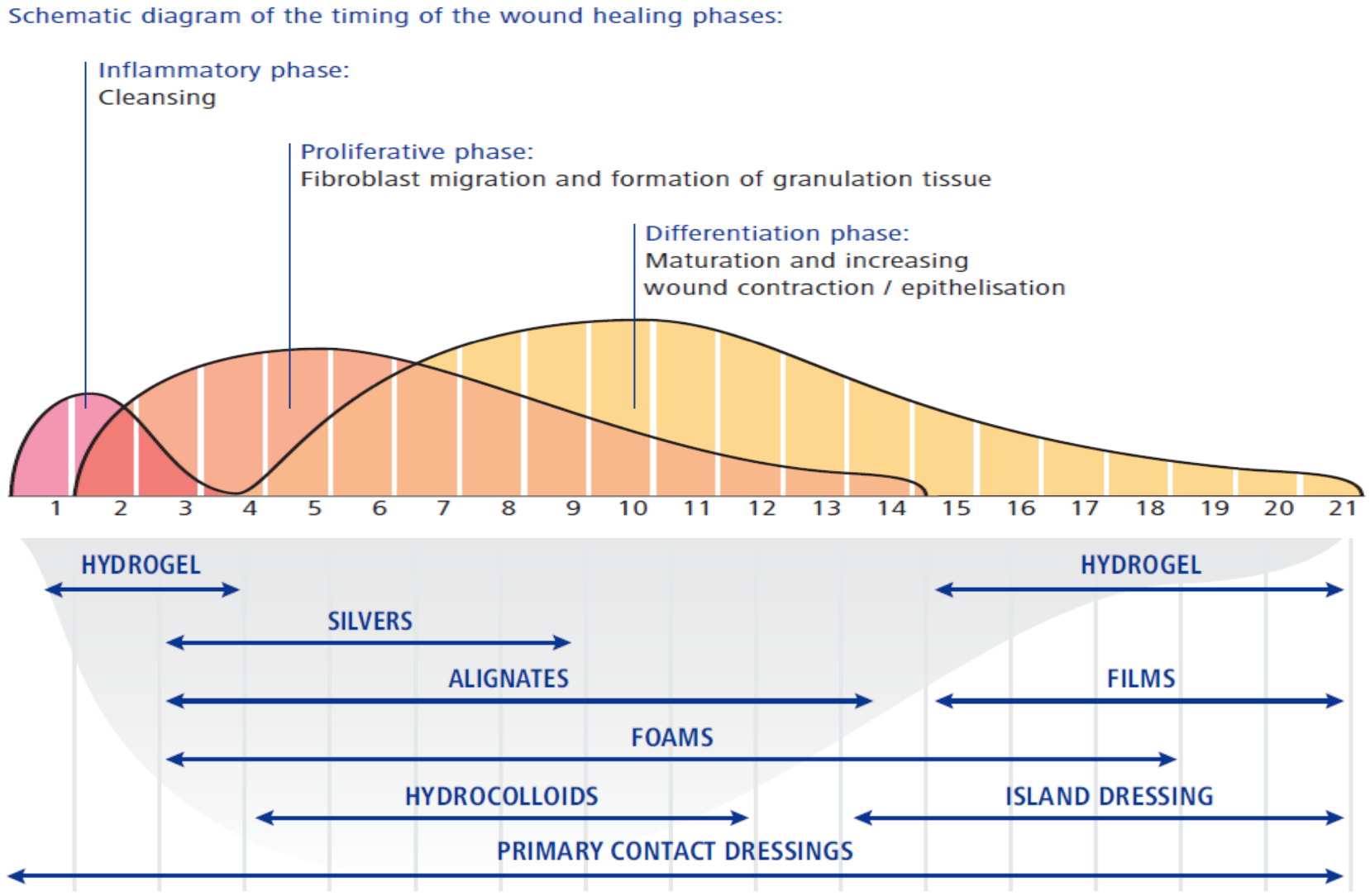


Summary



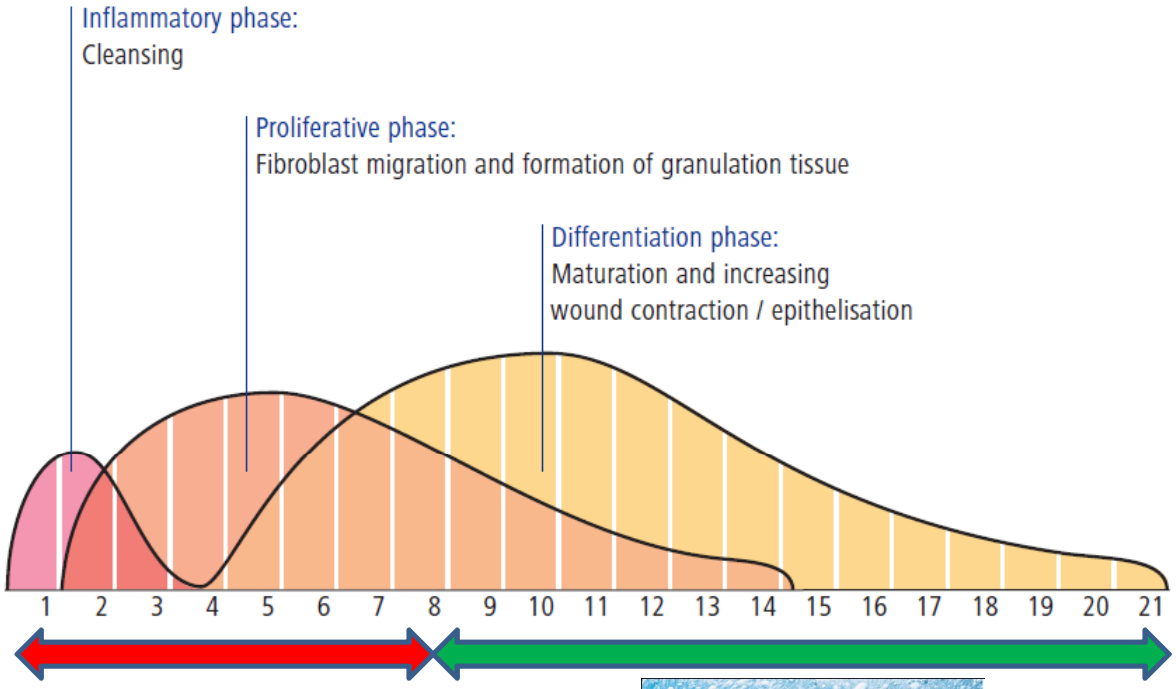
- Cleansing Phase
  - Moisture regulation
  - Debridement
  - MMP regulation
  - Infection Control
  - pH buffer
- Granulation Phase
  - Moisture regulation
- Epithelialization Phase
  - Moisture regulation

Moist Wound Healing Framework

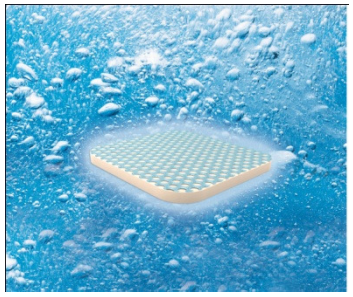


The Therapy Approach

Schematic diagram of the timing of the wound healing phases:



TenderWet Plus



HydroTac

TenderWet Plus + HydroTac

THE EVIDENCE

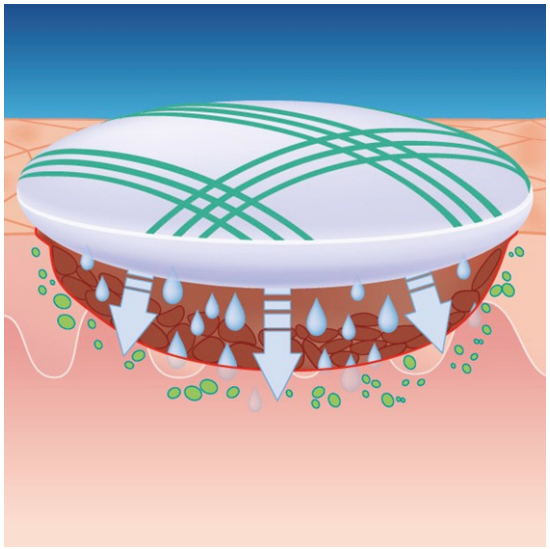
HARTMANN Hong Kong

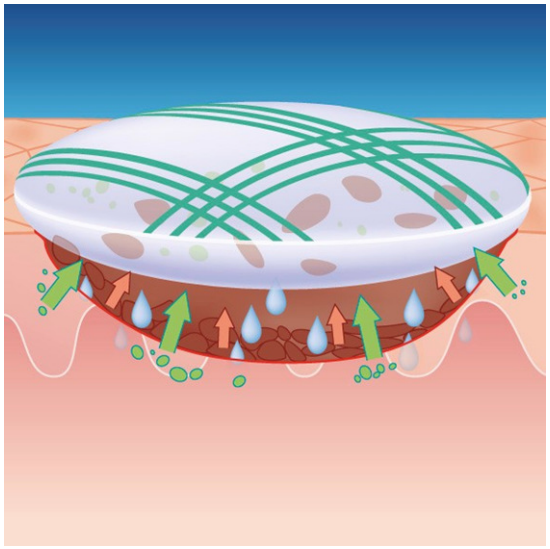
TenderWet Plus

- Multi-action dressing
  - Autolytic Debridement
  - MMPs inhibition
  - Infection control
  - pH buffer

- Cleansing Phase

Rinsing Absorption Mechanism





Release of Ringer's solution Absorption of exudate

= Rinsing Absorption Mechanism

TenderWet Autolytic Debridement

Table 2. Patients treated with TenderWet 24: characteristics of wounds and percentage changes

Percentage of wound area

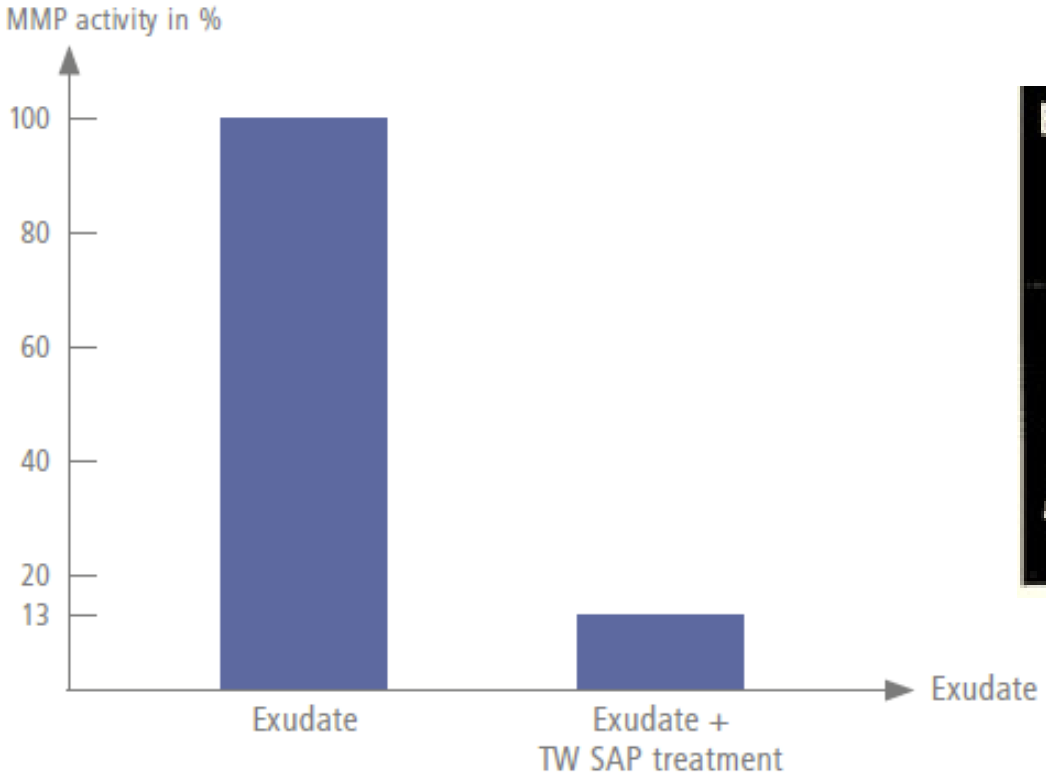
Day	Slough/eschar	Granulation tissue	Epithelialised area
Day 0 (n=15)	47.5%	36.3%	6.9%
Day 1–14 (n=15)	28.8%	63.0%	16.2%
Percentage changes	-18.7%	+26.7%	+9.3%
p value*	0.01	0.01	0.04
Day 7–21 (n=11)	17.9%	73.9%	24.3%
Percentage changes	-10.9%	+10.9%	+8.1%
p value*	0.15	0.15	0.03

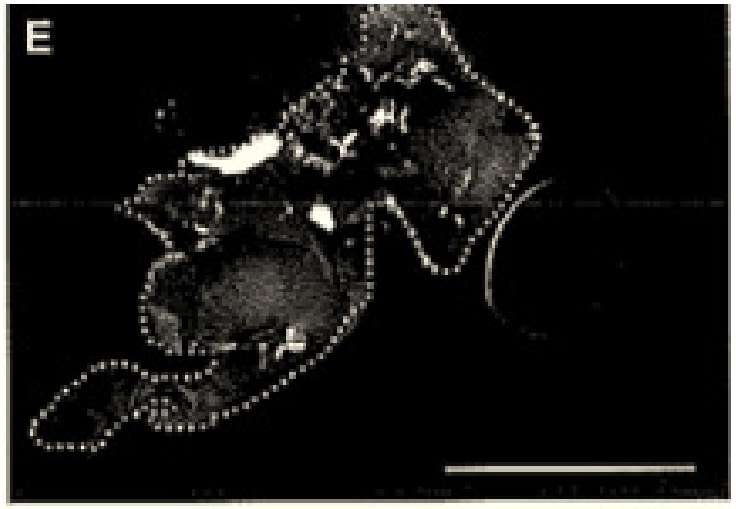
Konig *et al*, 2005

RTMANN Hong Kong

HARTMANN 赫曼

MMPs Inhibition



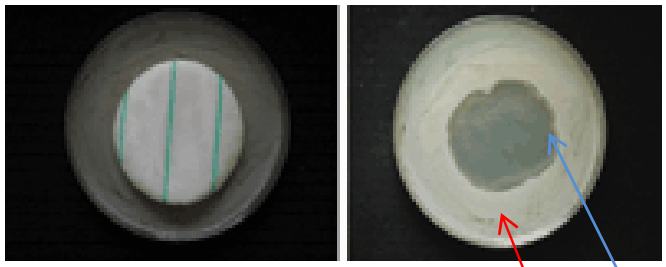


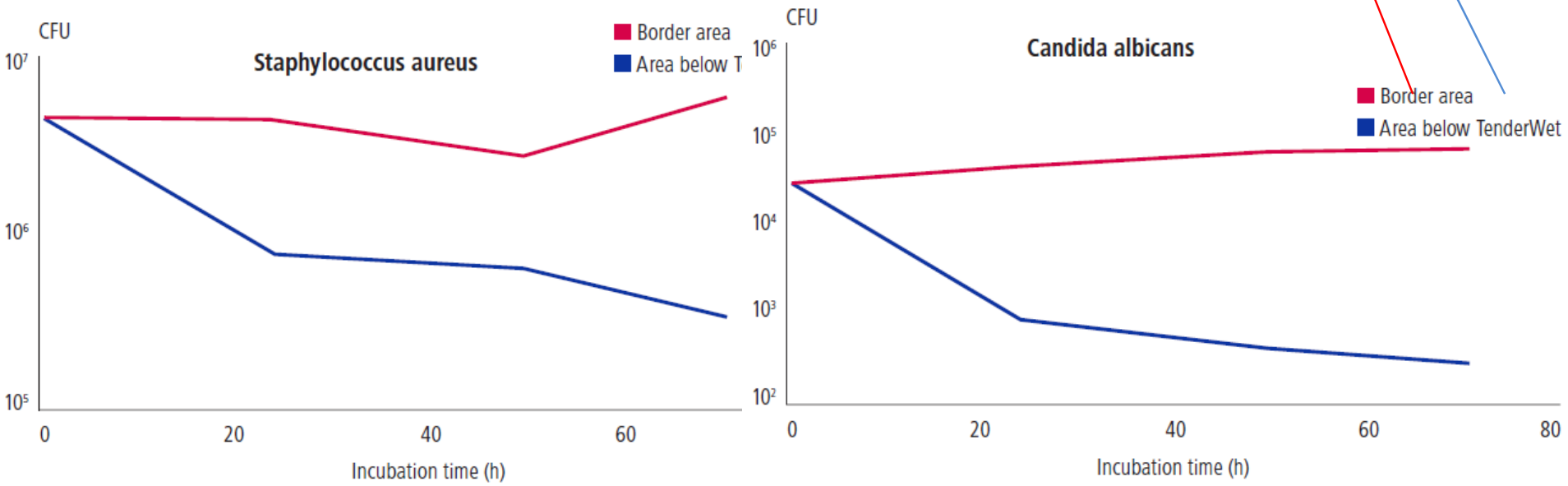
The polyacrylate super absorber (SAP) that is in the wound dressing pad reduces the MMP-2 and MMP-9 activity in the exudate of chronic wounds.

MMP Reduction of 87% after application of TenderWet Active

Eming SA *et al*, 2008

Infection Control – Colony in Agar





Bruggiser, 2005

pH5.5

TenderWet Plus before and after exposure to bromothymol blue

Goals and Accomplishments

Cleansing Phase

- Debridement
- Regulate MMPs
- Infections control
- pH buffer

TenderWet

- Autolytic Debridement
- MMP inhibition
- Bacteria Inhibition
- pH 5.5

NEW!

TenderWet Plus - Now with Polyhexanide (PHMB)!!!

HydroTac

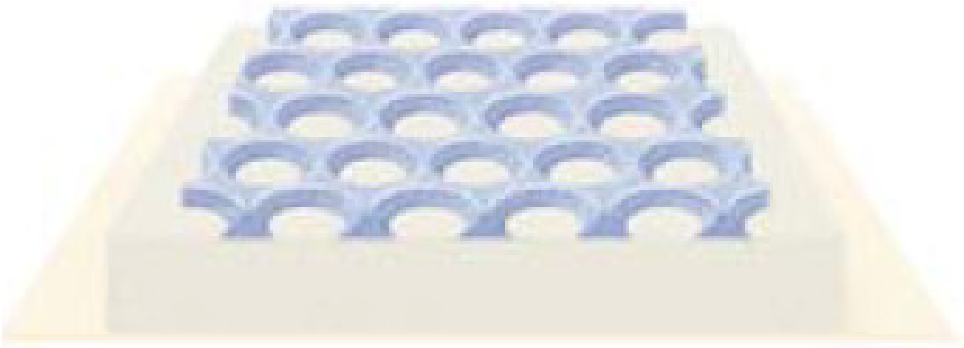
MOISTURE REGULATION IN GRANULATION AND EPITHELIALIZATION PHASE

HARTMANN Hong Kong

HydroTac

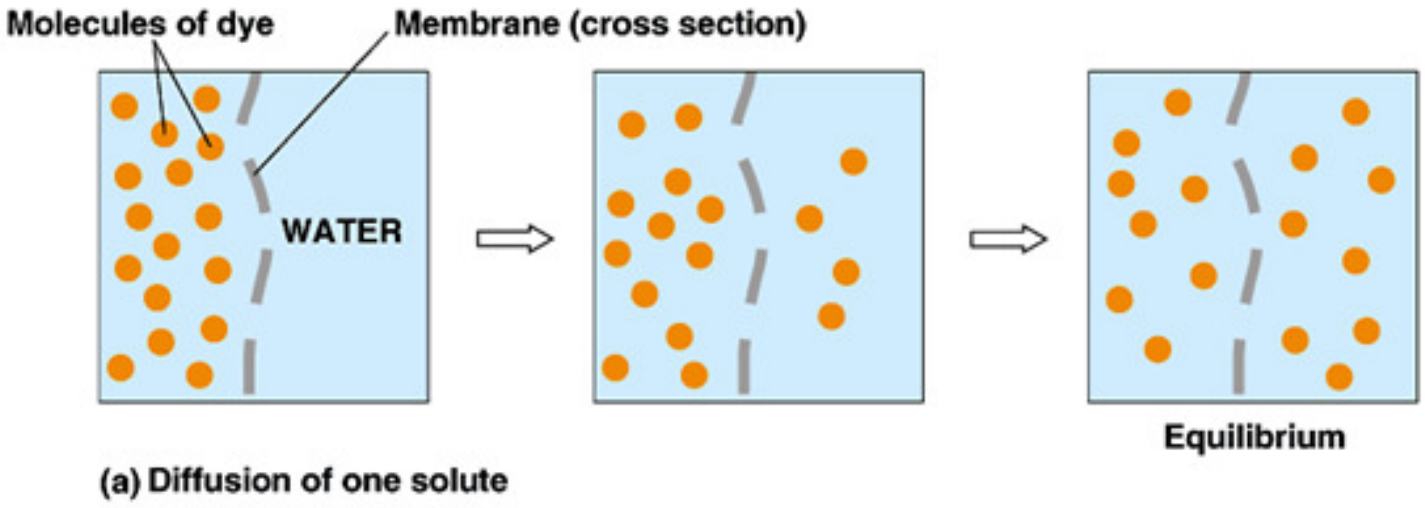
- Good absorption capacity – Foam Backing
- Unique properties - Hydrogel layer
  - Active moisture donation

- Duo-action dressing



Equilibrium – Mother Nature at Work

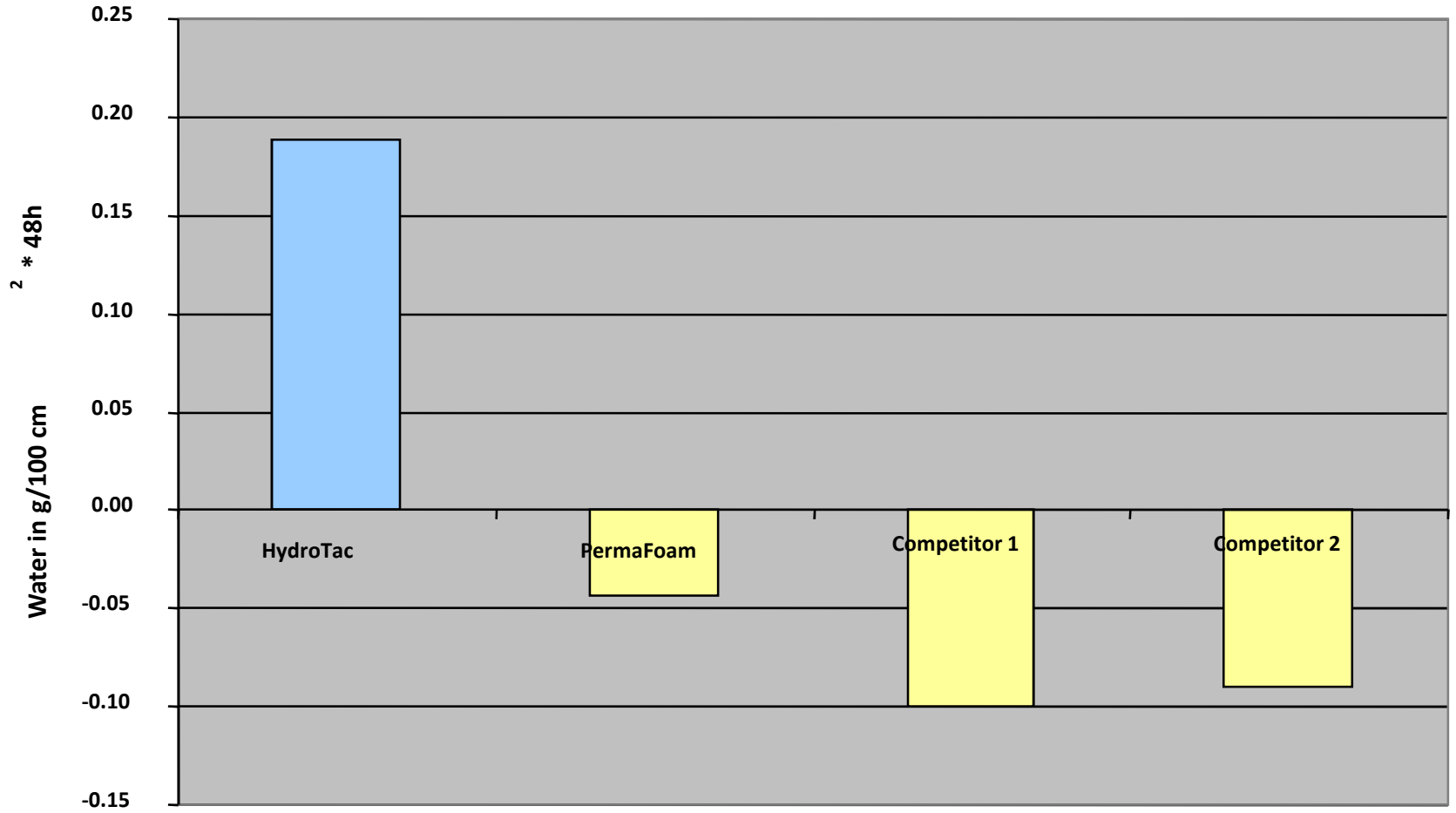
- The mastermind behind its mode of actions
- A law of nature



Simmons, 2007

Active Moisture Donation

Moisture release of various wound dressings on dry surface



Release of water (moisture) on a surface of 100 cm² after 48 h . See laboratory report 1000083.

HARTMANN Hong Kong

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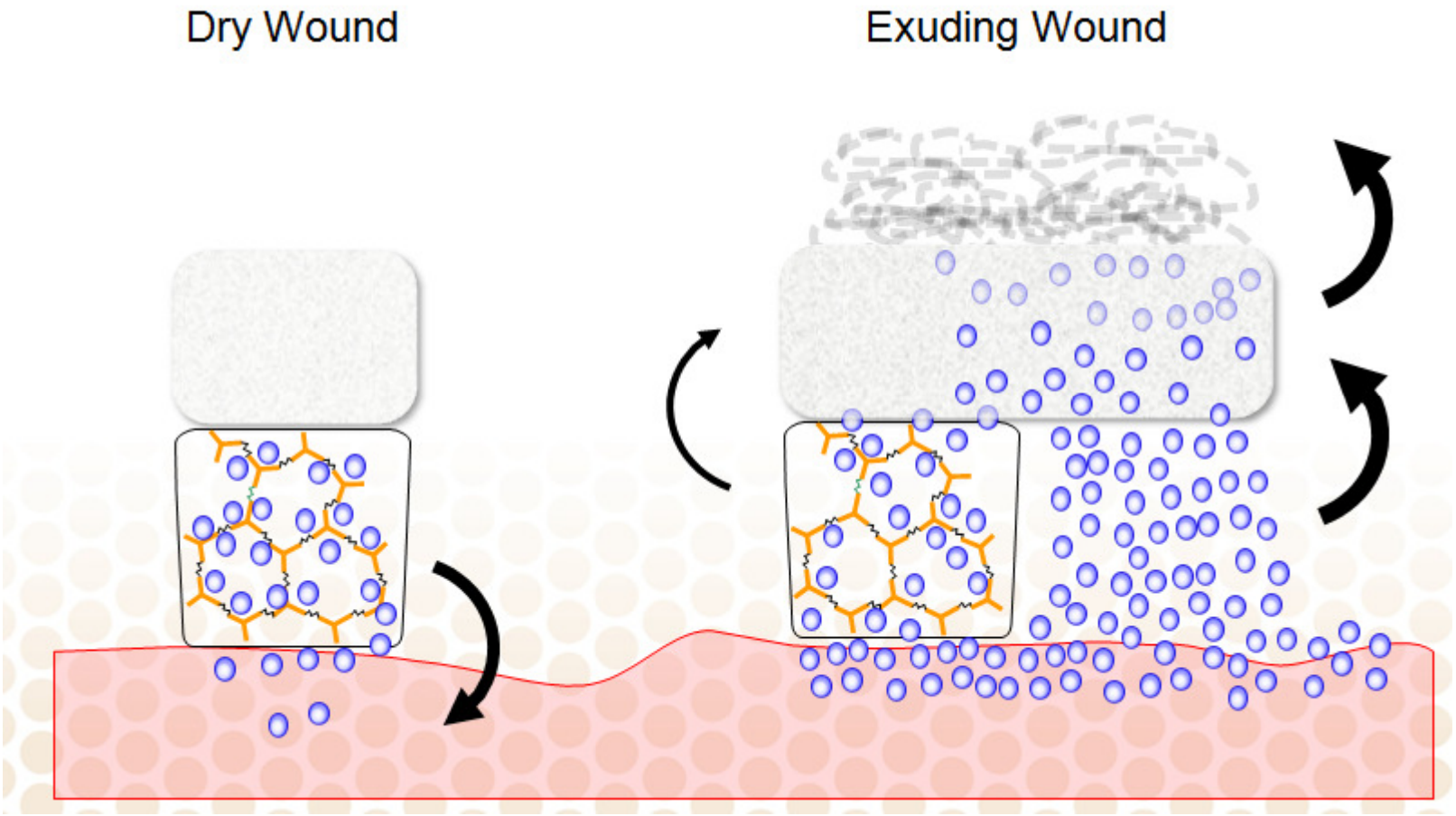
The Perfect Moisture Regulation



Release of moisture for optimal healing and migration

Absorption of moisture to reduce risk of maceration and bacterial growth

HARTMANN
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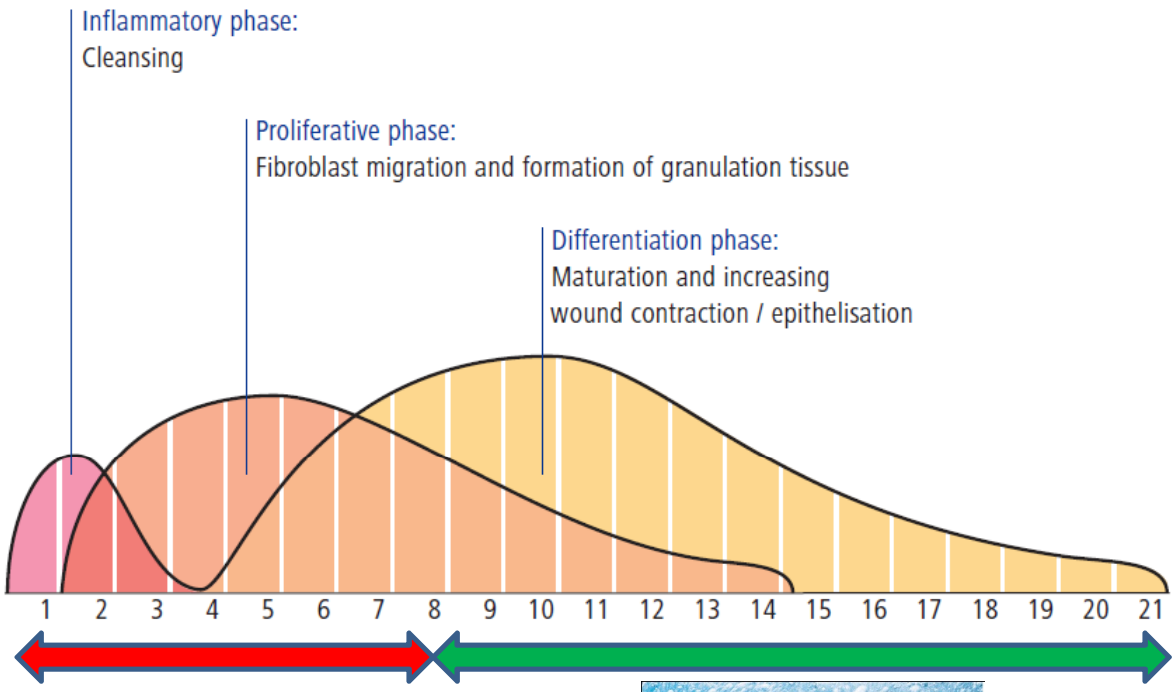
HydroTac – Intelligent Foam Dressing

- Release/Absorb according to the wound's needs
- Eliminates risks of drying out a wound

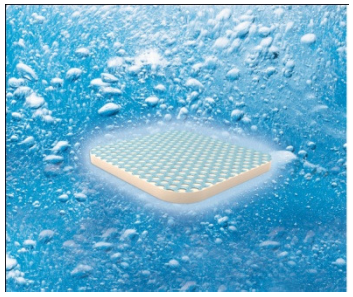
Moisture regulation is essential for granulation and epithelialization phase!

The Therapy Approach

Schematic diagram of the timing of the wound healing phases:



TenderWet Plus



HydroTac

Tenderwet Plus and HydroTac
Available Now!

Please Contact Our Sales Reps for More Info!

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