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Edema & Periwound edema

พว.จิตติมา นุริตานนท์

ฝ่ายการพยาบาลโรงพยาบาลรามาธิบดี

30 พฤศจิกายน 2564

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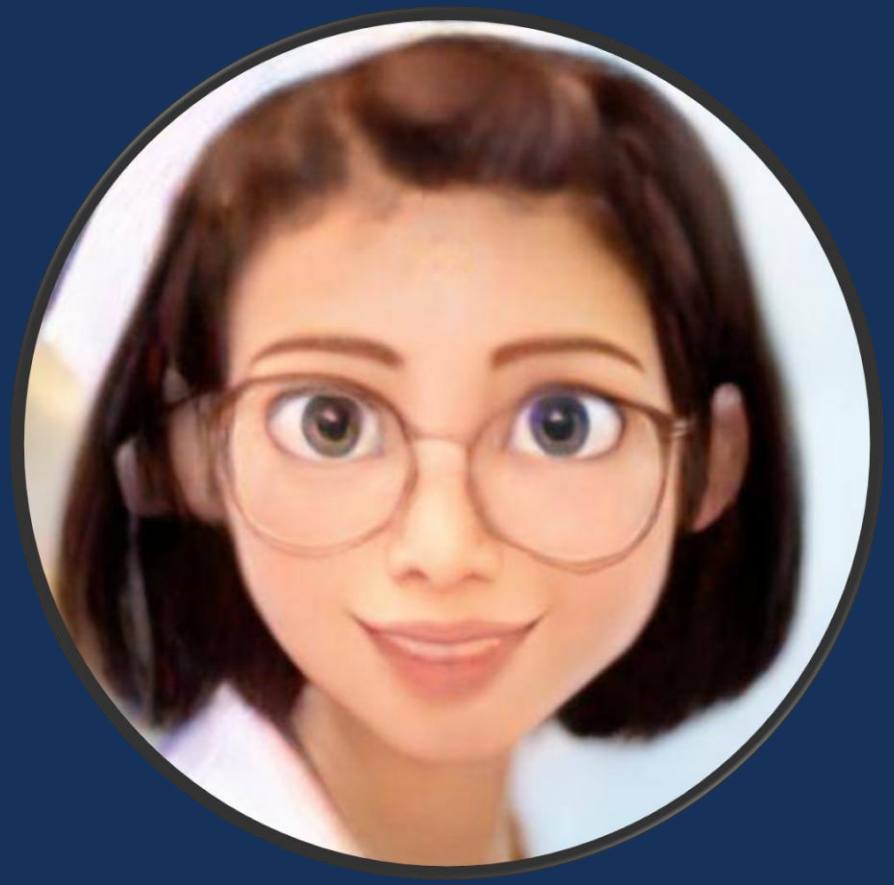

Agenda

I. Pathophysiology
II. Evidence Based Practice(Update)
III. Chronic oedema

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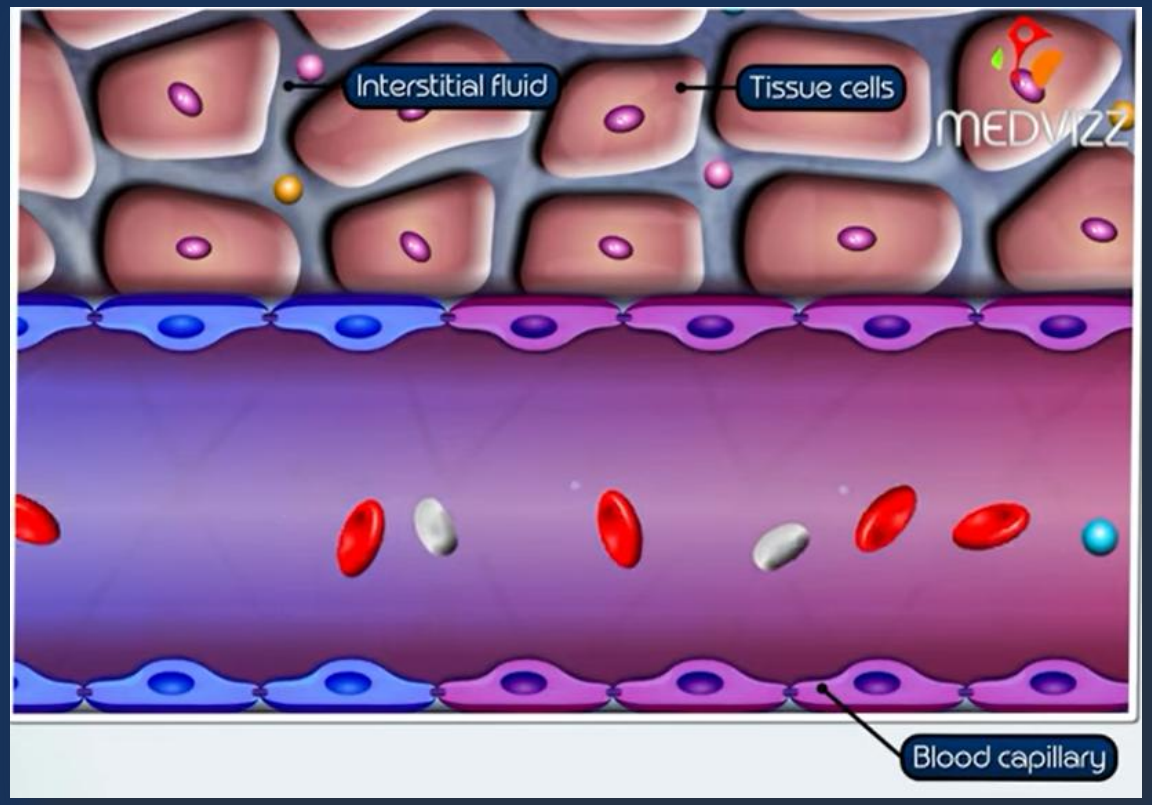
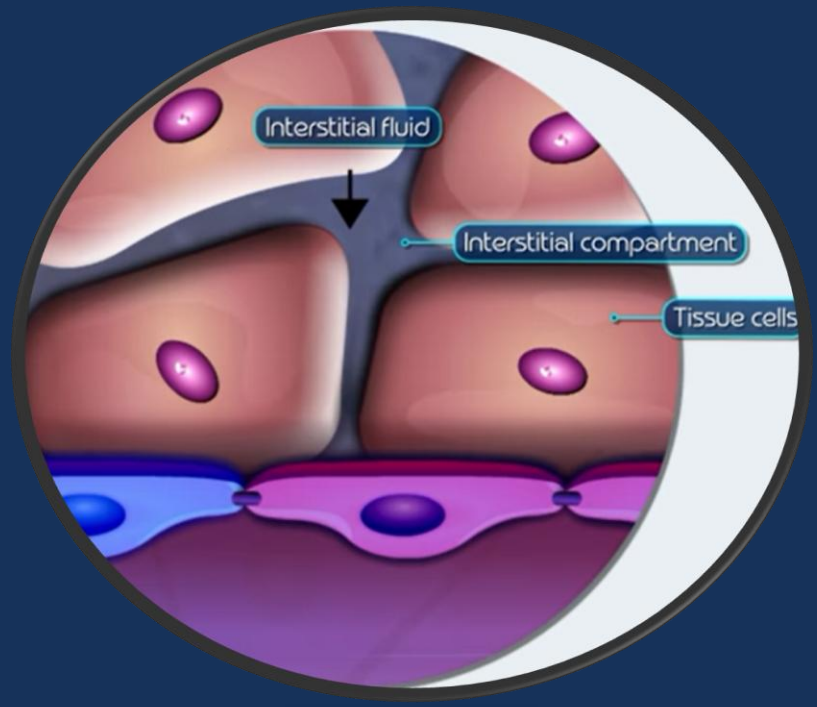
Edema is defined as accumulation of excess fluid in interstitial tissue space





Interstitial compartment :

- Also called "tissue space"
- Surrounds tissue cells

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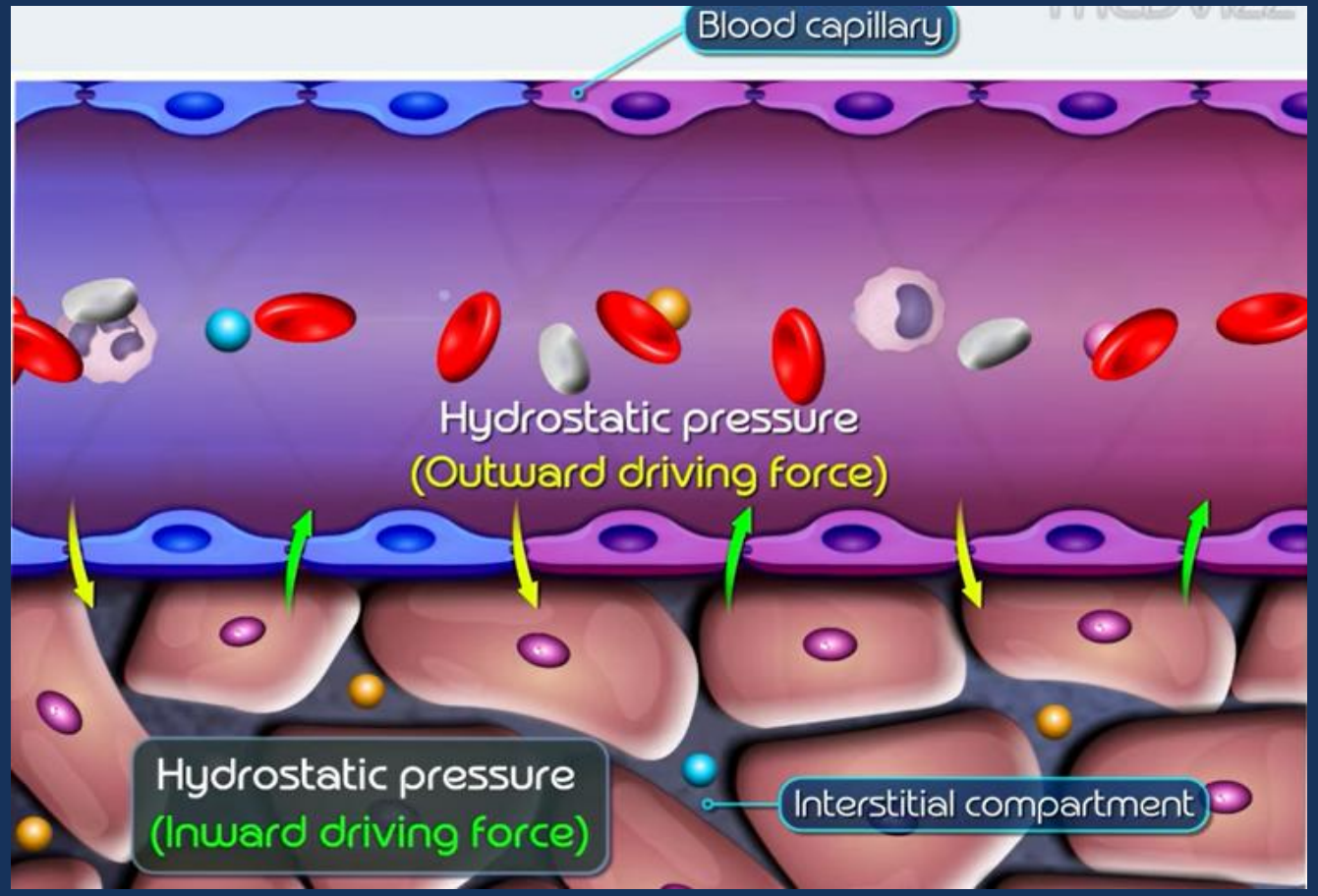
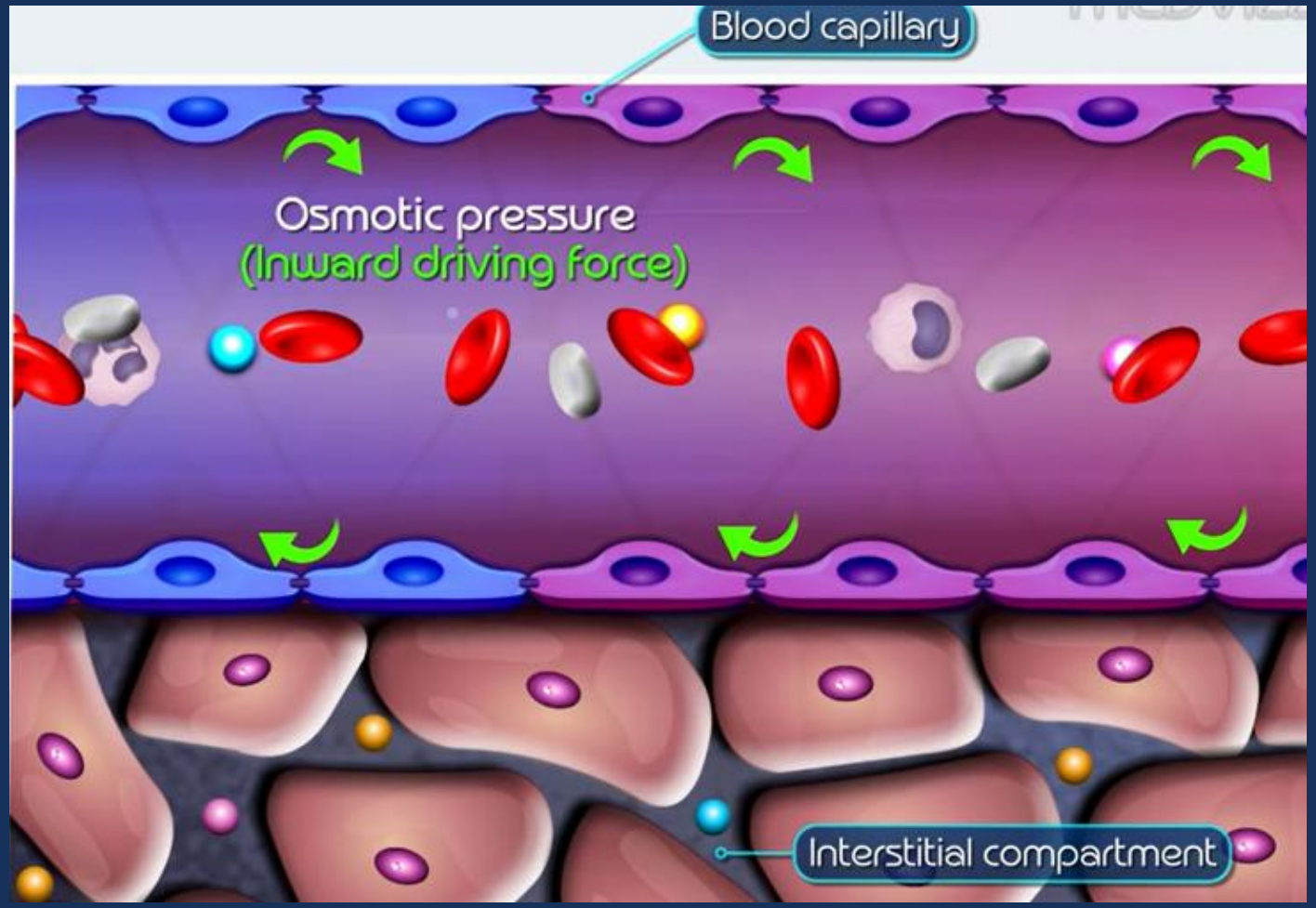
Hydrostatic Pressure

Plasma

Cell



Osmotic Pressure



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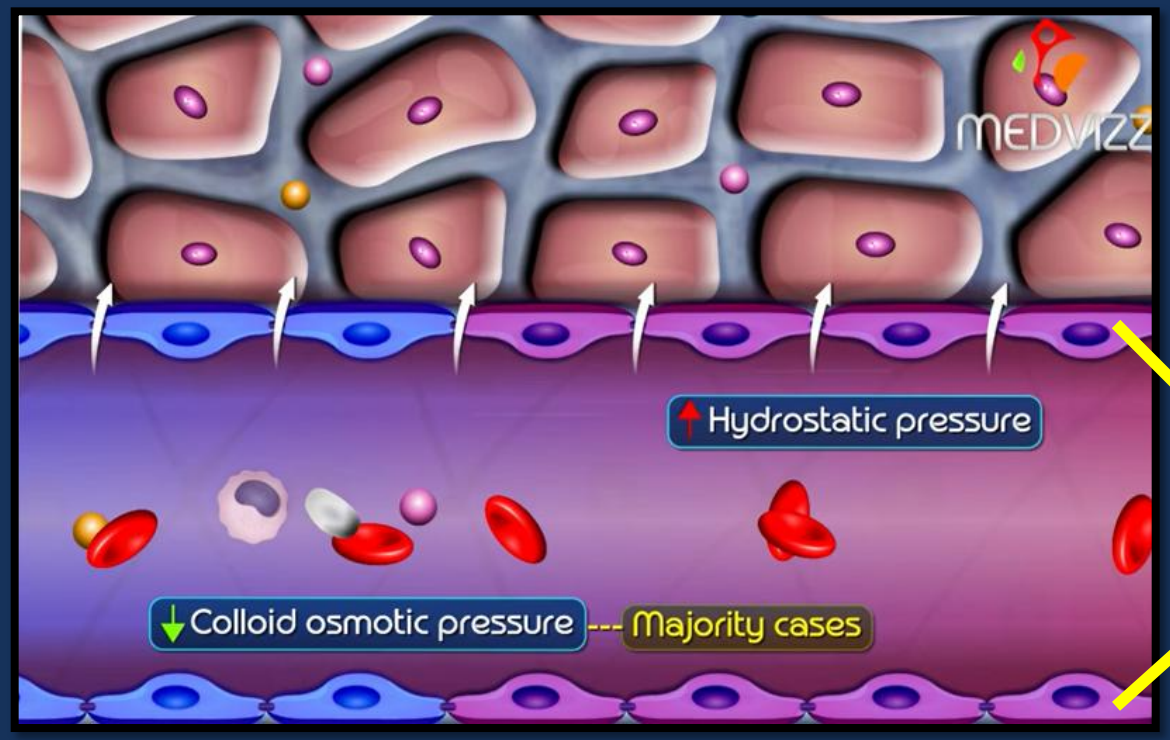
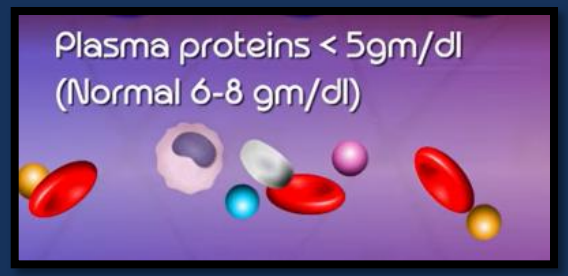
EDEMA

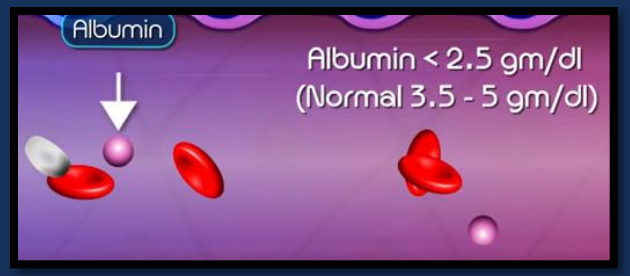
Cell

Plasma



Blood Capillary





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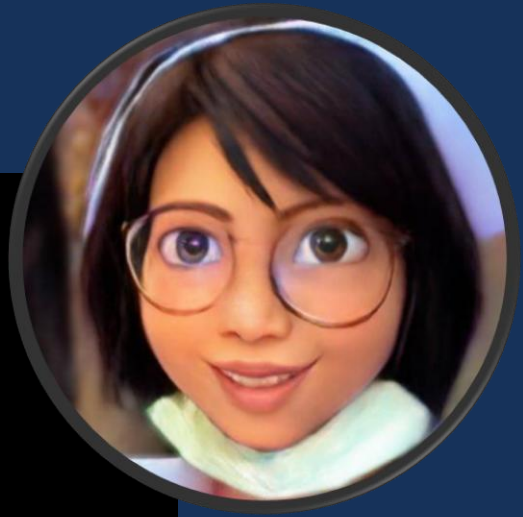
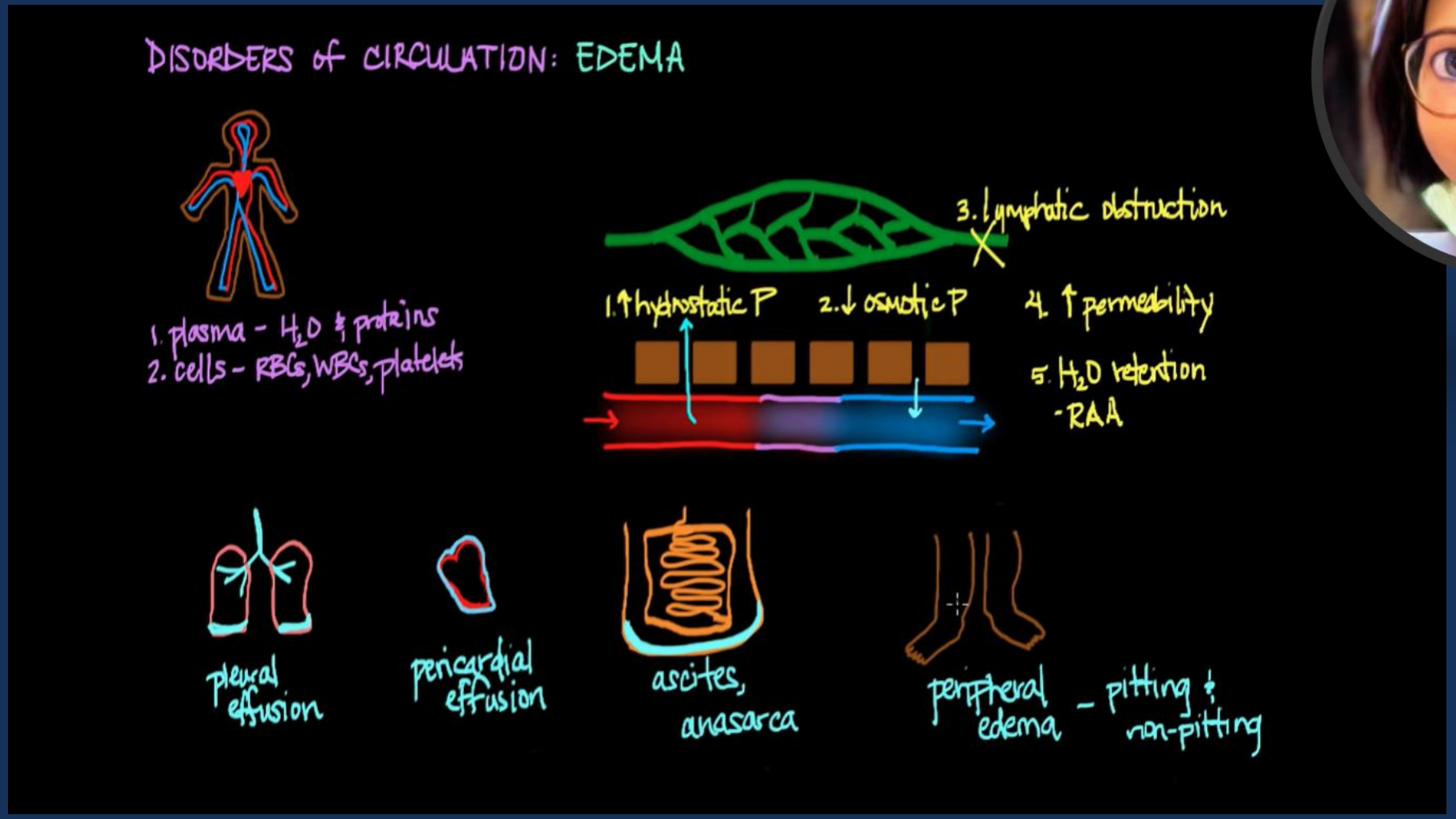
pathophysiology

EDEMA





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evidence based practice

Meta-Analysis > Ann Epidemiol. 2019 Jan;29:8-15. doi: 10.1016/j.annepidem.2018.10.005. Epub 2018 Nov 12.

Prevalence of chronic wounds in the general population: systematic review and meta-analysis of observational studies

Laura Martinengo [1], Maja Olsson [1], Ram Bajpai [1], Michael Soljak [1], Zee Upton [2], Artur Schmidtchen [3], Josip Car [4], Krister Järbrink [1]

Results: Seventeen studies met the inclusion criteria, and 11 studies analyzing chronic wounds in the general population were included in random effects meta-analyses to calculate pooled prevalence. Chronic wounds of mixed etiologies (n = 3) showed a pooled prevalence of 2.21 per 1000 population, and for chronic leg ulcers (n = 9), the prevalence was estimated at 1.51 per 1000 population.

Conclusions: Our findings, aligned to previous studies reporting point prevalence of chronic wounds identified within the healthcare system, showed that the vast majority of chronic wounds in epidemiological studies are made up by chronic leg ulcers.

Martinengo, L., Olsson, M., Bajpai, R., Soljak, M., Upton, Z., Schmidtchen, A., ... & Järbrink, K. (2019). Prevalence of chronic wounds in the general population: systematic review and meta-analysis of observational studies. *Annals of Epidemiology*, *29*, 8-15.

evidence based practice

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BMJ Open. 2020; 10(9): e039411.
Published online 2020 Sep 25. doi: 10.1136/bmjopen-2020-039411
Original research
PMCID: PMC7520842
PMID: 32978205

Incidence of chronic wounds in Singapore, a multiethnic Asian country, between 2000 and 2017: a retrospective cohort study using a nationwide claims database

Orlanda Q Goh,[1,2,3,4] Ganga Ganesan,[1] Nicholas Graves,[5] Yi Zhen Ng,[6] Keith Harding,[6] and Kelvin Bryan Tan[1,7]

Results

Between 2000 and 2017, 124 023 wound-related claims among 86 631 patients were identified. Age-specific rate (ASR) and age-adjusted incidence rates of all wounds increased over 18 years, with greatest increases among those aged ≥80. In 2017, the median age of patients was 74 (IQR 63–84). Half were male (51%). 70% were ethnic Chinese, 15% Malay and 9% Indian. In 2017, the crude incidence rate (CIR) was 15 per 100 000 persons (95% CI 14 to 16) for venous wounds, 56 (95% CI 53 to 58) for arterial, 168 (95% CI 164 to 173) for diabetic and 183 (95% CI 179 to 188) for pressure wounds. The CIR of any chronic wound was 296 (95% CI 291 to 301). ASRs were greatest in patients aged ≥80: 92 (95% CI 74 to 112) for venous, 478 (95% CI 436 to 522) for arterial, 1791 (95% CI 1710 to 1876) for diabetic, 3647 (95% CI 3530 to 3766) for pressure and 4277 (95% CI 4151 to 4407) for any wound. Compared with the Chinese, Indians had thrice the ASRs of venous and arterial wounds and double the ASR of diabetic wounds. Malays had double the ASRs of arterial and diabetic wounds.

Conclusions

Chronic wounds are common in the elderly with significant ethnic disparities in this Asian cohort. With the incidence expected to rise with ageing populations, it is crucial to address health disparities and evaluate utilisation and cost to inform clinical practice and health policy.

Goh, O. Q., Ganesan, G., Graves, N., Ng, Y. Z., Harding, K., & Tan, K. B. (2020). Incidence of chronic wounds in Singapore, a multiethnic Asian country, between 2000 and 2017: a retrospective cohort study using a nationwide claims database. *BMJ open*, *10*(9), e039411.

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Focus

Chronic oedema

ที่มา : https://slidetodoc.com/managing-lower-limb-swelling-chronic-oedema-and-lymphoedema/

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Chronic oedema

How to cite this document:

Wound Care People (2019) Best practice in the community. Chronic oedema. Wound Care People, Wixford.
Available to download from:
www.jcn.co.uk; www.gpnursing.com

Chronic oedema

Chronic oedema is …

An umbrella term for anyswelling that has been present for three months or more

(Moffatt et al, 2003; BLS, 2019).

ที่มา : https://pharmaceutical-journal.com/article/ld/chronic-oedema-treatment-and-the-impact-of-prescribed-medicines

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Prevalence

- ✓ The prevalence of chronic oedema has a significant association with the presence of a wound. (Moffatt et al, 2019)
- ✓ Reported that between 52% and 69% of patients cared for by community nurses had chronic oedema,
- ✓ And of these, 73% also had a leg ulcer.

Four people in every 1000 have chronic oedema. This increases to 12 people in every 1000 over the age of 85 years.
(Moffatt et al, 2017)

ที่มา : https://www.mayoclinic.org/diseases-conditions/edema/symptoms-causes/syc-20366493

Chronic oedema

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Progressive condition

Figure 1.
Mild oedema.

Figure 2.
Moderate oedema.

Figure 3.
Severe oedema extending to feet and resulting in irregular limb shape (image provided courtesy of Kendal

ที่มา : https://www.woundcare-today.com/uploads/files/files/66774-Best-Practice-Statement.PDF

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Chronic oedema assessment

1. **S**tory

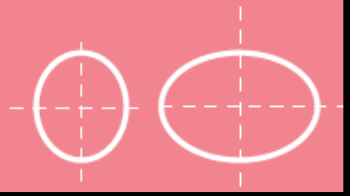
2. **S**elf-care

3. **S**ite

4. **S**kin

5. **S**ize

6. **S**hape



Chronic oedema assessment

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Accurate history-taking helps to identify cause(s) of chronic oedema, and highlights contraindications for compression therapy and the need for further investigation.

- ***Age***
- ***Presenting complaint***
- ***History of the complaint:***
- ***History of past and current medication:***
- ***Medical background:***
- ***Family background:***
- ***Nutritional status:***
- ***Chronic medical conditions or comorbidities***
- ***Psychological status:***
- ***Socio-economic circumstance:***

Chronic oedema assessment

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Encourage and support your patients to engage with self-care where possible.

It may be necessary to remind the patient that their chronic oedema is also their responsibility, not just yours.

- *The patient's knowledge and beliefs about their condition:*
- *The patient's understanding of their treatment*
- *How actively does the patient wish to be involved in their treatment:*
- *Are there any social pressures, and, if so, how will they impact on treatment:*
- *The patient's desire to change:*
- *Cognitive ability and skills:*
- *Previous treatment experience:*

Chronic oedema assessment

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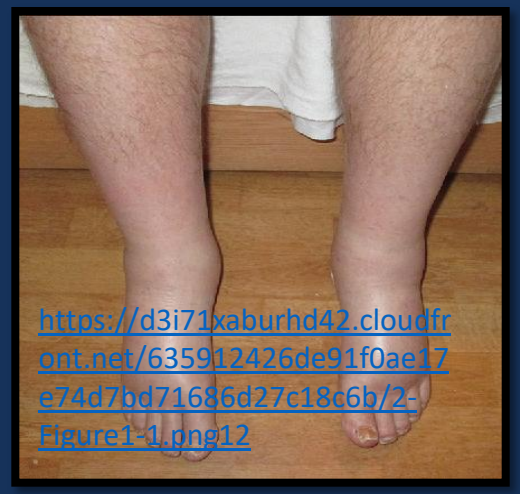
The location of chronic oedema gives clues to the possible underlying causes and informs where compression should be applied.

Identify the full extent of the swelling; failure to examine the limb fully can create problems with management.

3.

Site

- *Is the swelling acute or chronic?*
- *Does the swelling affect one limb (unilateral) or both (bilateral)?*
- *Is swelling localised or more generalised? (Gorman et al, 2001)*



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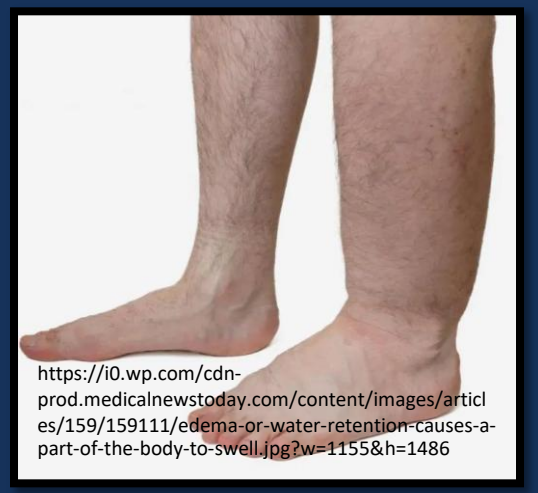
Oedema in both legs



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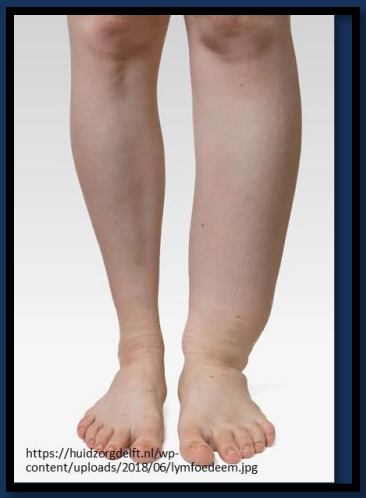
Oedema in one leg



https://huidzorgdelft.nl/wp-content/uploads/2018/06/lymfoedeem.jpg

One or both legs

Chronic oedema assessment

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Maintain skin integrity and health to reduce the risk of complications such as cellulitis. Examine for signs and symptoms of peripheral arterial disease which may contraindicate compression therapy.

4.

Skin

- *Dryness*
- *Sensitivities to topical Treatment*
- *Signs of cellulitis*
- *Colour/circulation of the skin*
- *Pigmentation*
- *Fungal infections*
- *Hyperkeratosis:*
- *Appearance of the skin*

https://sa1s3optim.patientpop.com/assets/images/provider/photos/2236340.jpeg

https://ercare24.com/wp-content/uploads/cellulitis-leg.jpg

Figure 10.
Lymphorrhoea.

Chronic oedema assessment

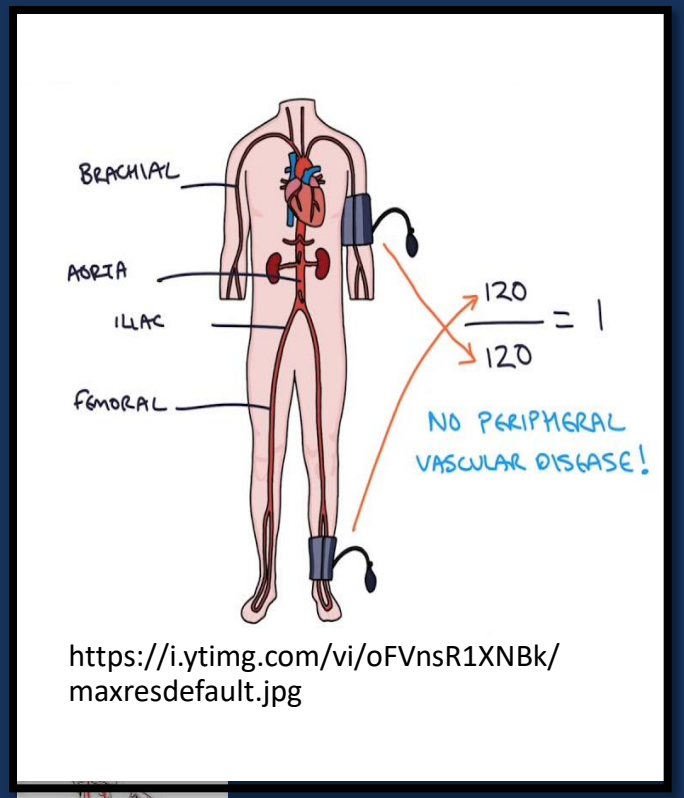
Peripheral arterial disease and vascular assessment

ABPI may be difficult to determine in patients with chronic oedema, and can be inaccurate due to the presence of swelling.

For this reason, routine ABPI measurement is not required for people with chronic oedema in the absence of risk factors, history or signs and symptoms of peripheral arterial disease.

If there are concerns of reduced arterial flow, referral for vascular assessment should be made.

From: BLS, 2019



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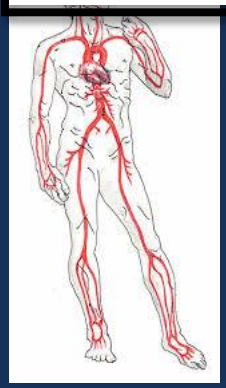

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Chronic oedema assessment

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The size of the limb can influence compression choice and indicate the need for intensive therapy to reduce swelling before maintenance therapy.

5.

Size

- ***Is the limb longer or shorter than average?***
- ***Is the limb thinner or fatter than average?***
- ***Is the patient wheelchair bound or immobile?***

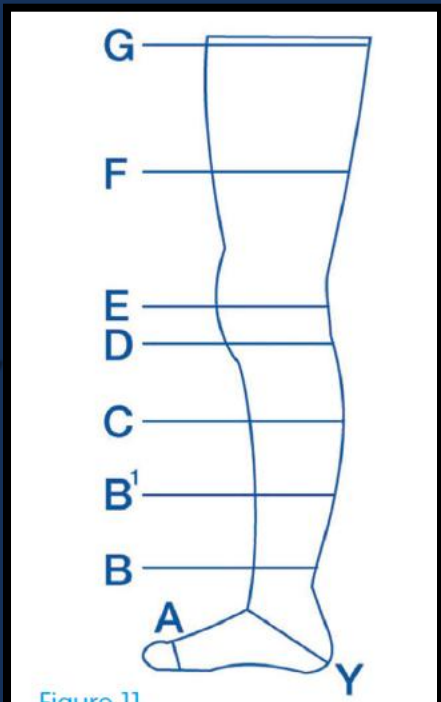

Figure 11.
Measuring points.

Chronic oedema assessment

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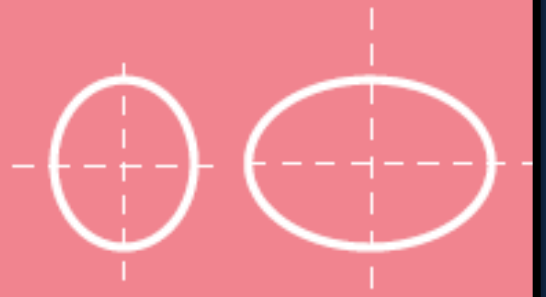
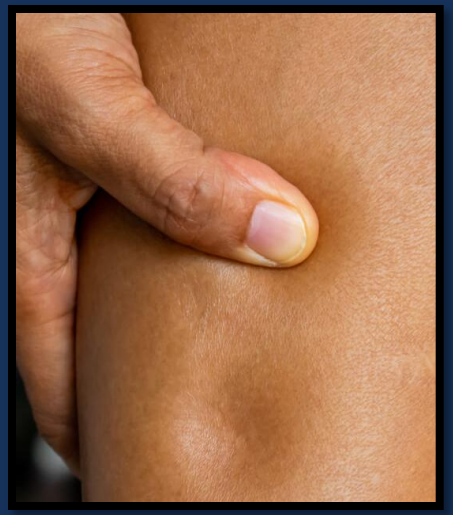
Shape of the limb influences treatment choices, and may signpost the need for referral.

6.

Shape



- *Is it regular or irregular?*
- *Like an inverted champagne bottle*
- *Are skin folds present?*
- *Is oedema pitting or non-pitting?*
- *Is swelling confined to the feet/foot?*
- *Is swelling confined to the thigh(s)?*
- *Are the toes affected*



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https://ercare24.com/wp-content/uploads/cellulitis-leg.jpg

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Take home message

หลักสำคัญของขาบวมคือ assess

รีบหาเหตุปัจจัยที่เกื้อหนุน

ตรวจร่างกายให้ละเอียดนะคะคุณ

เรื่อง leg wound ท่านจะได้ คลายกังวล

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