TICKET TO RIDE: A HERNIA GUIDE

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- WEB WOC Faculty Member

OBJECTIVES

The learner will be able to:

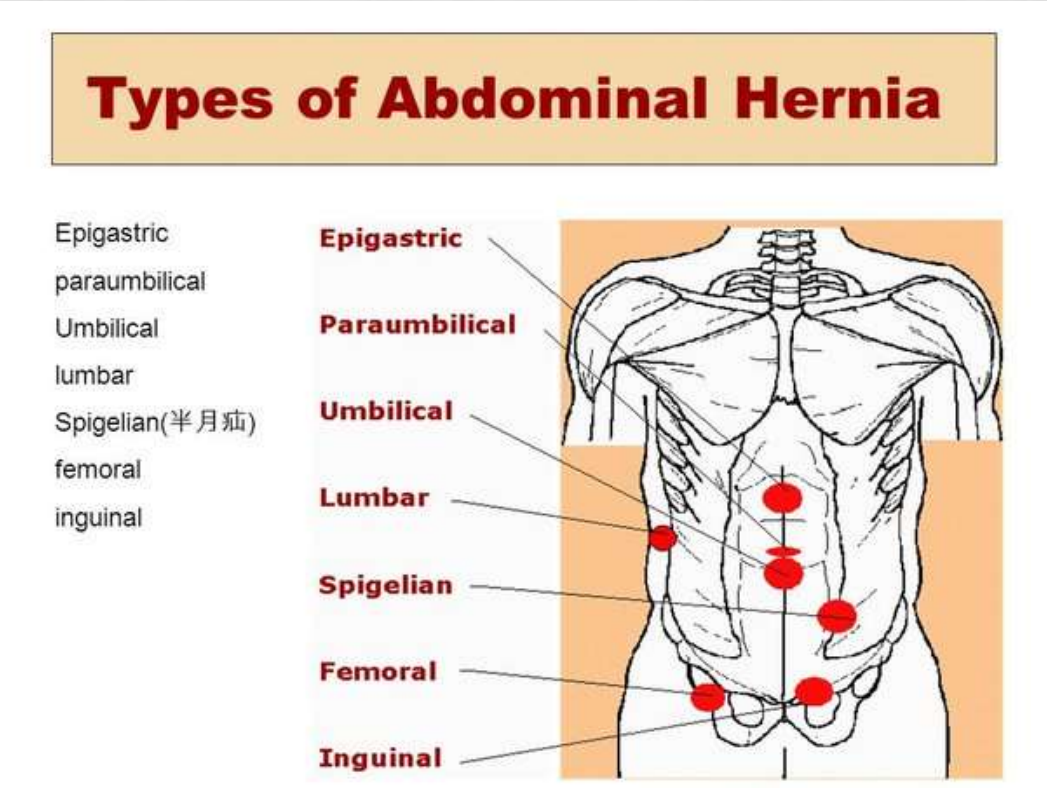
-Define hernia

-Discuss assessment, management, treatment of hernias

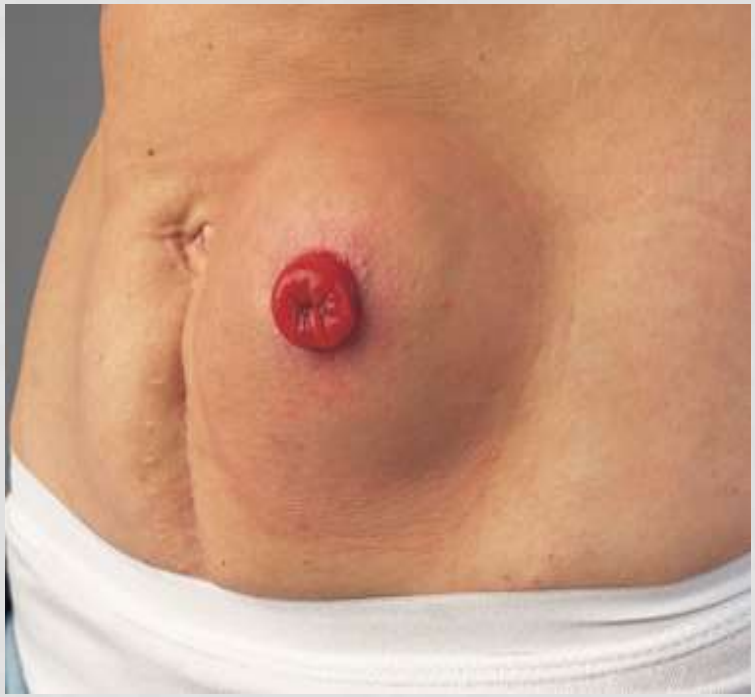
-Ability to measure and fit for hernia support belts

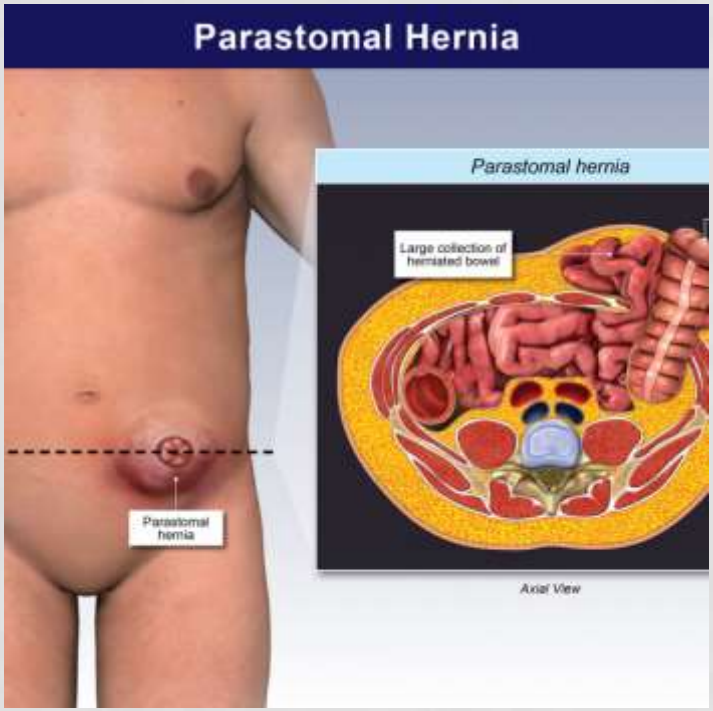
HERNIA

-Definition



PARASTOMAL HERNIA





PREVALENCE

-Prevalence rate of 14-78%

-At risk populations

~Waist circumference >100cm

~50% with hernias 1 year post op

~80% with hernias 5 years post op

-Diagnosis

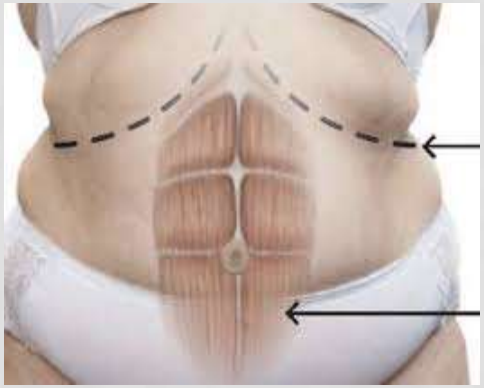
~Assessment in clinic/Symptomatic

~Diagnostic testing

ETIOLOGY

-Stoma site location

~Within the rectus abdominal muscle (Pittman, 2022)



-Surgical technique

~Size of fascial opening to construct stoma (Pittman, 2022)

-Medical conditions

~obesity, malnutrition, age, post op sepsis, abdomen distention, constipation, steroid use, chronic lung disease, chronic cough, colostomies > ileostomies, smoking (Caldwell & Hyman, 2019)

-Increase in abdominal pressure

~obesity, exercise – heavy lifting, coughing, straining with bowel movements, ascites (Pittman, 2022)

Predisposing consideration	RISK Factors	Additional information/ explanation	Reference
Age	Children The over 70	Rectus muscle underdeveloped in paediatrics. Rectus muscle gets weaker as collagen reduces with age	Thompson (2008)
BMI *(Appendix 3a (ii))*	Obese	Undue strain and force on rectus abdominis	McGrath/Porrett (2006) Thompson (2008)
Occupation/ lifestyle	Manual Young family	Undue strain and force on rectus abdominis	
Activity 1-5 1 lie on sofa - 5 gym/sport every day	Sports - e.g. weight lifting	Undue strain and force on rectus abdominis	Kane et al (2004)
Surgery	Emergency Post op infection Multiple abdominal surgery Malnutrition	Risk of infection, larger aperture of stoma with emergency surgery Deficiency in iron, selenium, zinc	Bucknel & Ellis (1982) Bucknel & Ellis (1984) McGrath/Porrett (2006) Pearl (1989) Pilgrim et al (2010)
Stoma - site	Transverse colostomy Colostomy Out of rectus muscle Previous hernia repair Surgical technique (trephine/ aperture of stoma greater than 35mm/X incision)	Research currently indicates higher risk in colostomist Incidence reduced if within rectus muscle Implications of abnormal collagen and PMH of herniosis Likelihood of recurrence	McGrath/Porrett (2006) Carne et al (2003) Cowin & Redmond (2012) Pilgrim et al (2010)
Diagnosis/ PMH	Malignancy Diverticular Existing Hernia Previous Hernia AAA Connective tissue disorders Steroids Diabetes	Diverticular/AAA/hernia – suggest abnormal collagen as a result of genetic make up could be contributing to history of herniosis Non-specific collagen Steroids/diabetes impair healing	Muysoms etal (2009) Hernia (Springerlink.com) RC Read (2011) Readding (2014) Pilgrim et al (2010)
Smoking	Smoker	4 x greater risk of PSH in smokers	McGrath/Porrett) (2006)
Raised intra abdominal pressure	COPD/emphysema Ascites Acute/chronic constipation (colostomists/urostomist)	Persistent coughing/forceful sneezing/vomiting leads to undue strain within the abdomen Risk of constipation post operatively due to poor fluid intake secondary to the change in absorption and alterations in renal function acutely or long term	Thompson (2008) Readding (2014)

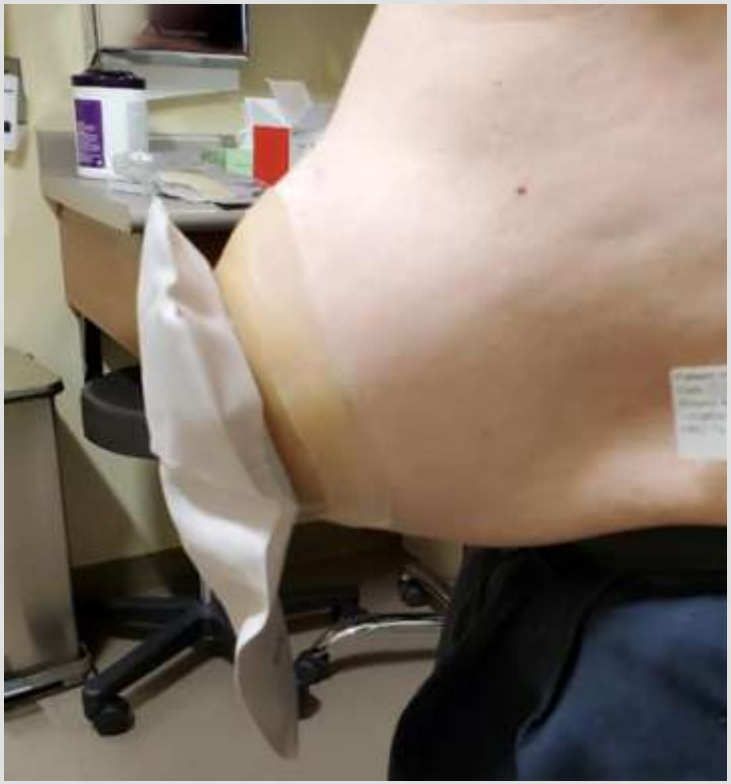
United Kingdom Association of Stoma Care Nurses. (2019)

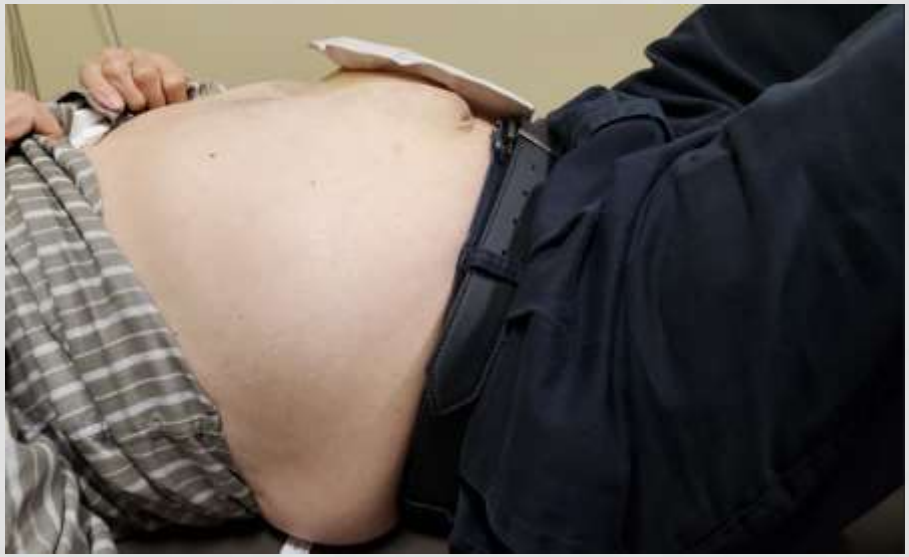
ASSESSMENT

- **Stool amount/consistency**
- **Any change in function?**
- **S/S obstruction**
- **Presence of pain**
  - Occur with eating, working, activity
- **Quality of life**
  - Wear typical clothing
  - Pouching concerns
- **Stoma size – has the hernia caused stoma to enlarge/flatten**
- **Be on the lookout for pressure injuries – hernias and convexity are not friends**
- **Visually assess**
  - Standing/sitting/lying

(Caldwell & Hyman, 2019)

ASSESSMENT





NOW WHAT???

Surgical repair

~Who are candidates?

Surgical options:

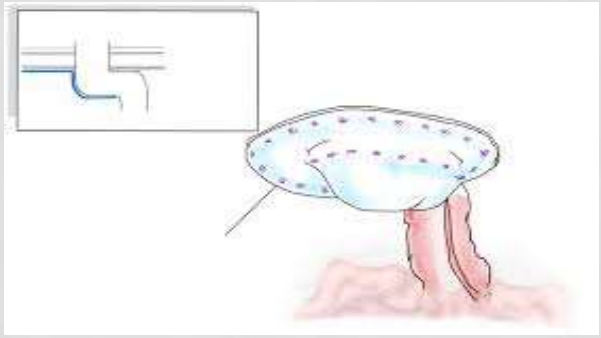
~Are they a reversal candidate?

~Tighten the fascial ring at base of stoma

~Relocate the stoma

~Repair with prosthetic mesh – presently standard of care

-Sugarbaker technique



Conservative Approach

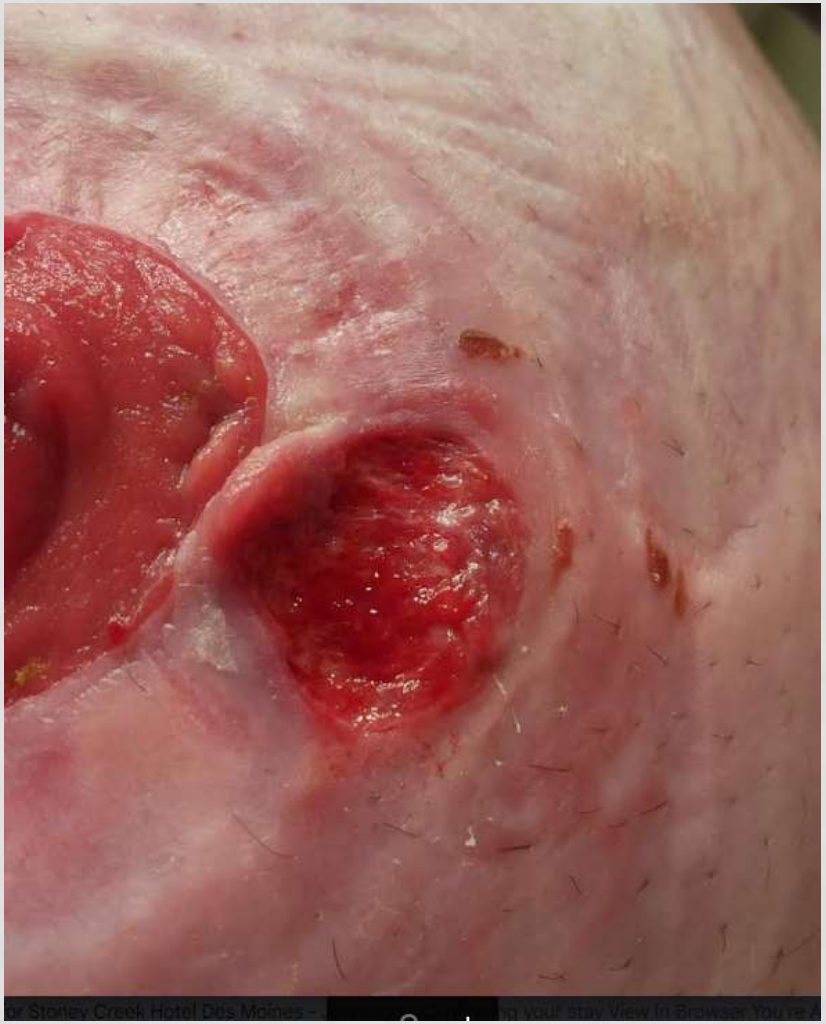
(Caldwell & Hyman, 2019)

CONSERVATIVE – POUCHING ISSUES

Contour of hernia

- Flat pouching system
- Avoidance of belts
- One piece over two pieces (more flexible)

PRESSURE WITH PARASTOMAL HERNIA



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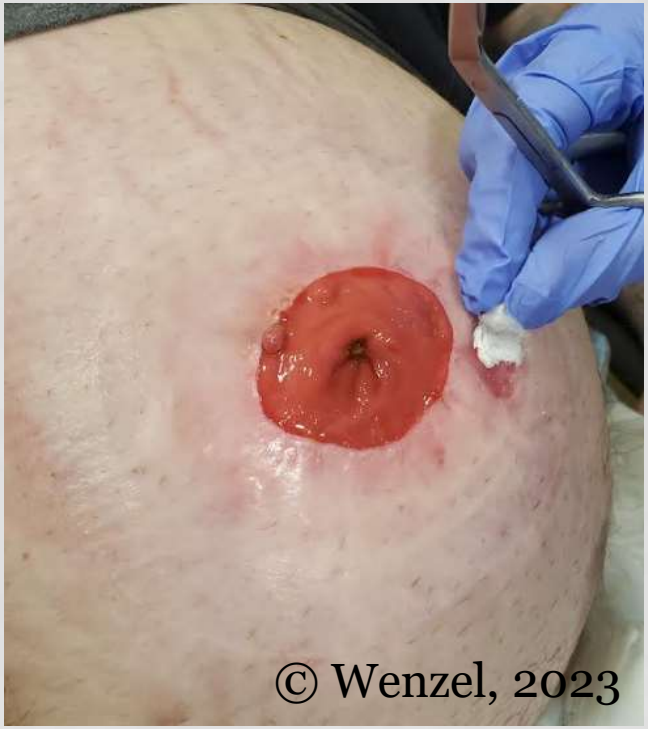

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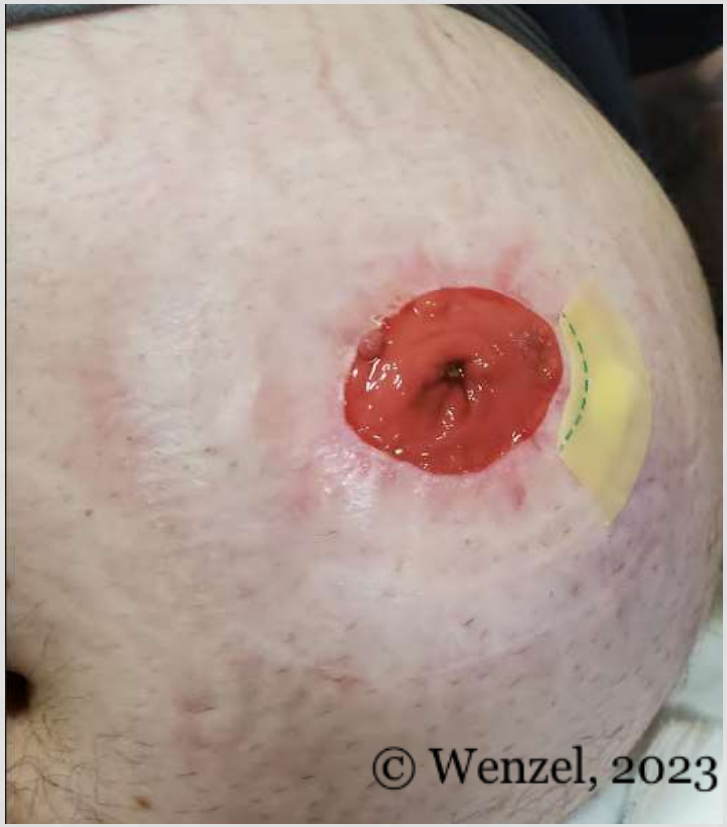
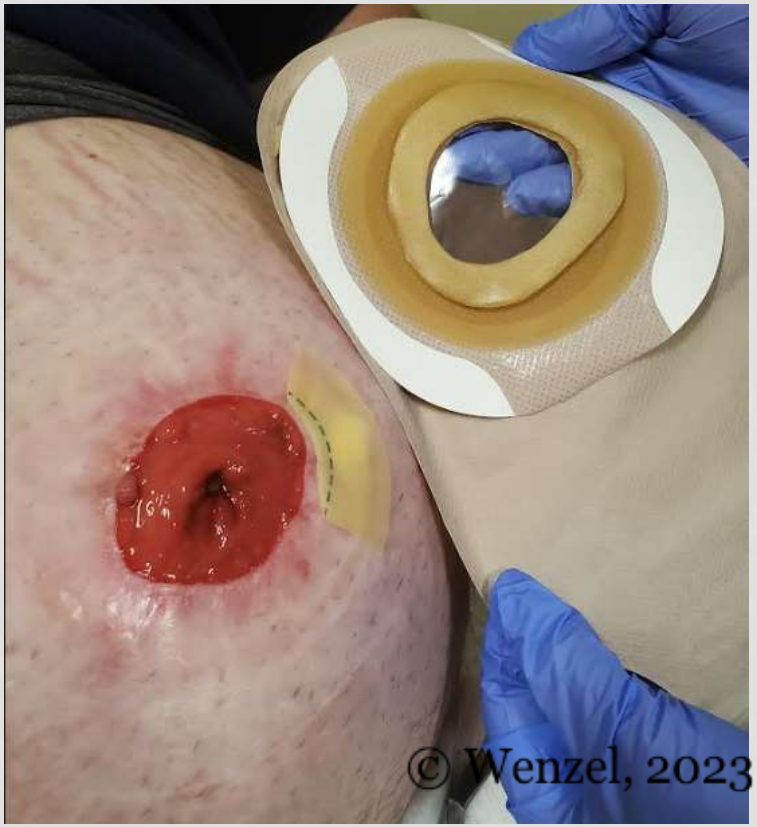
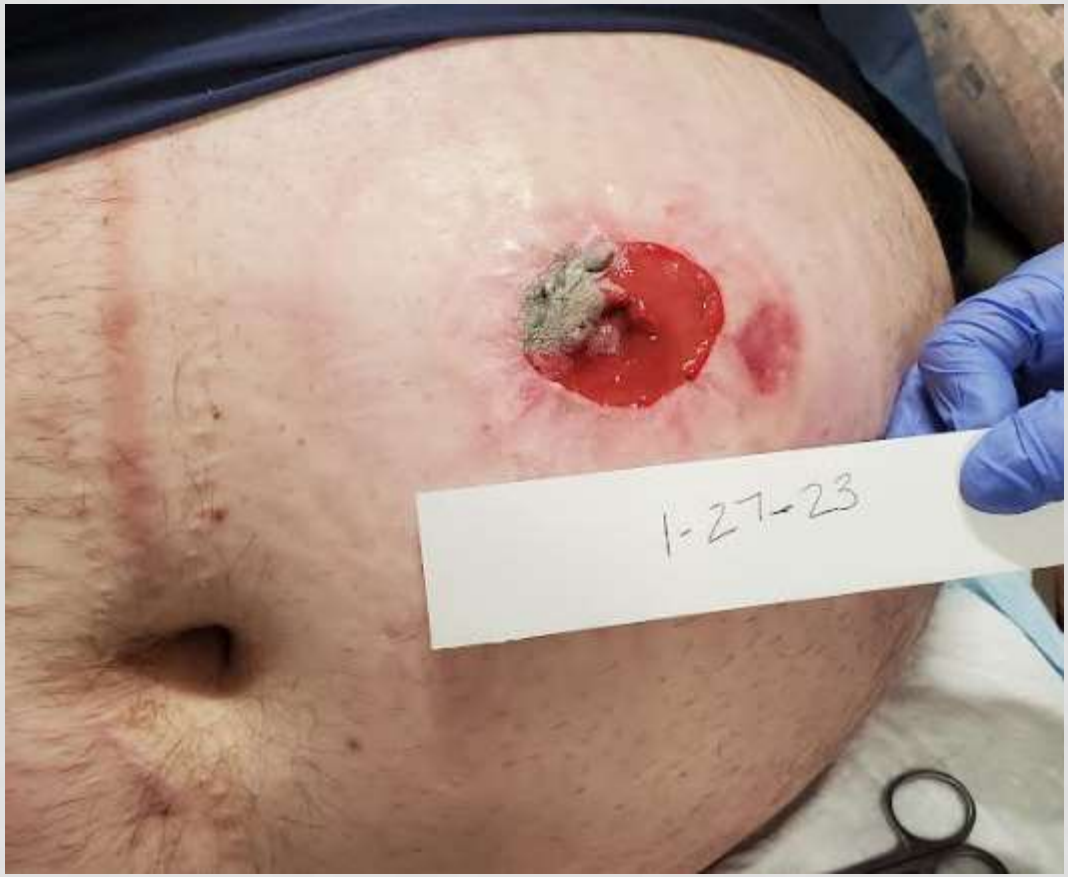
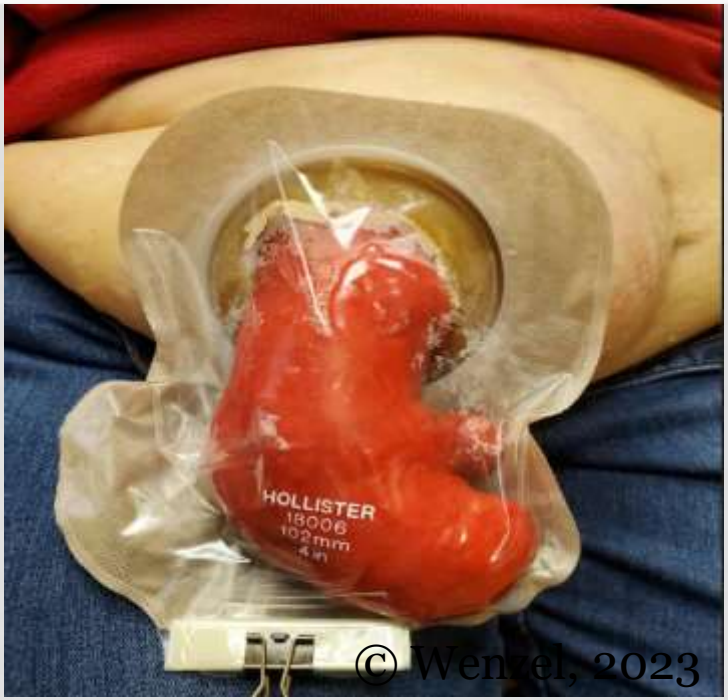




1 WEEK AFTER TREATMENT



PARASTOMAL HERNIA WITH PROLAPSE



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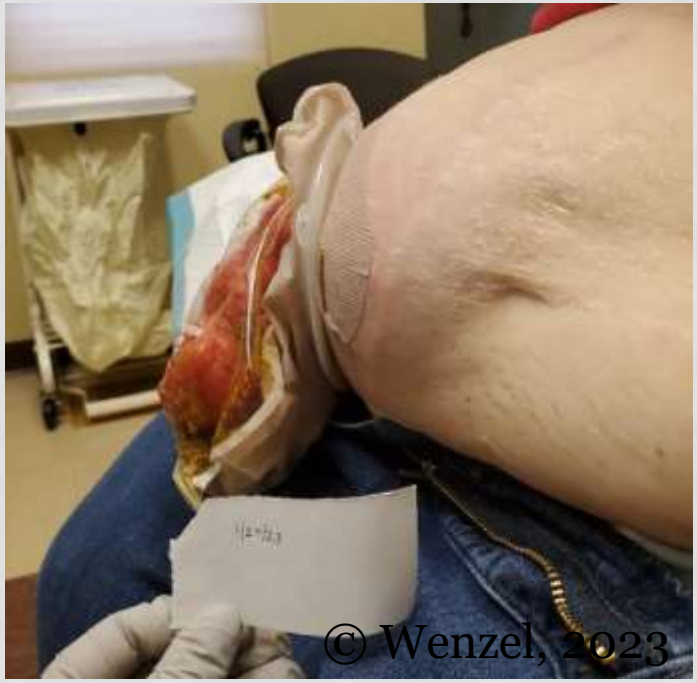
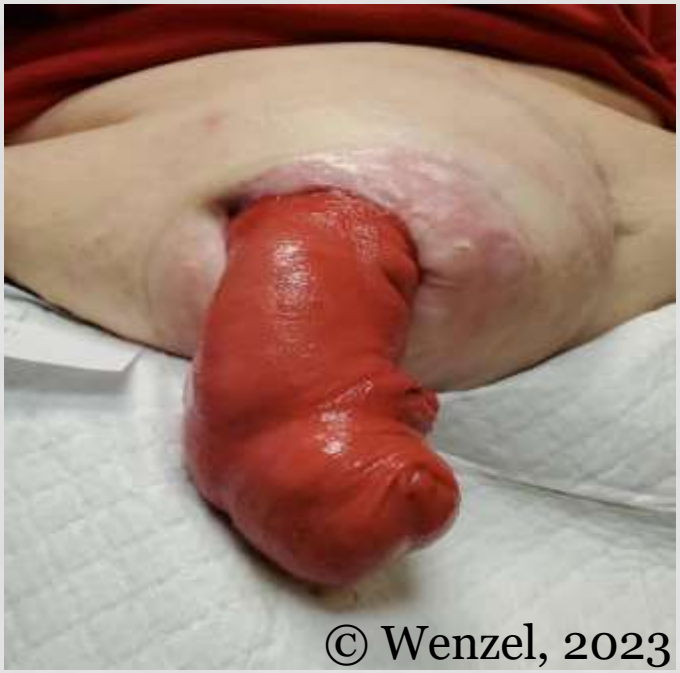




EXERCISE

-Russell(2019) – ostomate and clinical exercise specialist

-Ostomates become less active after surgery

-82.3% of patients do not recall every receiving advice from their care providers about post-op abdominal exercises

-Start gentle core exercises 3-4 days post op

5X DAILY X 12 WEEKS POST OP

Breathe through nose and as you exhale, pull belly button down towards the spine

Place hands behind low back. Tighten abdomen muscles, push back into hands and lift your bottom. 3 sec hold and breath.

United Kingdom Association of Stoma Care Nurses, 2019

5X DAILY X 12 WEEKS POST OP

Knee Roll: Tighten abdomen muscles, gently rock knees side to side.

Stand with back agaist wall, tighten abdomen muscles – pushing back into the wall – hold for 3 sec.

(United Kingdom Association of Stoma Care Nurses, 2019)

EXERCISE

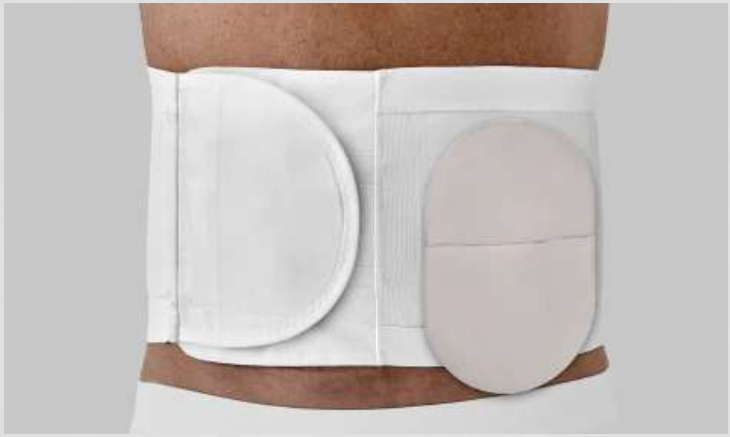
12 weeks post op – return to <u>active</u> exercises

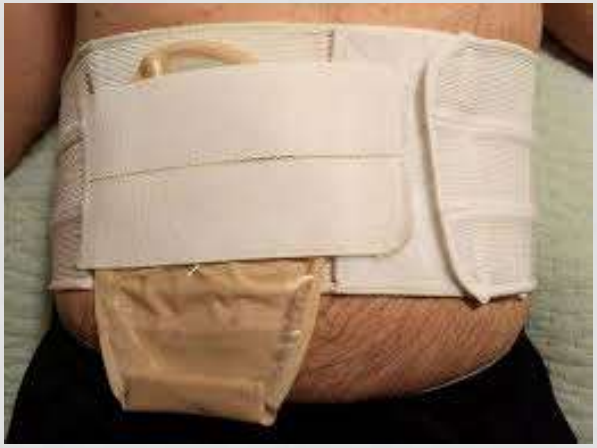
-Preparing you body for surgery is important

-Walking is encouraged

(Russell, 2019)

HERNIA BELTS



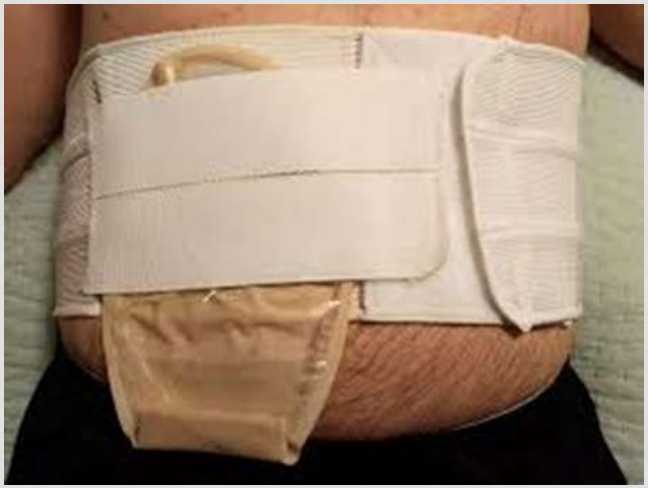


HERNIA BELTS

-Catalog order >> fit in clinic

-Custom options>>custom made

-prolapse cover, auxiliary belt, thumb loops, non-contoured, contoured



FITTING CONSIDERATIONS

Hernia size
-Belt should cover 80% of the hernia

Hernia reducible vs non-reducible

Stoma location

Shoulder/arm strength

Prolapse cover

Abdomen/trunk size

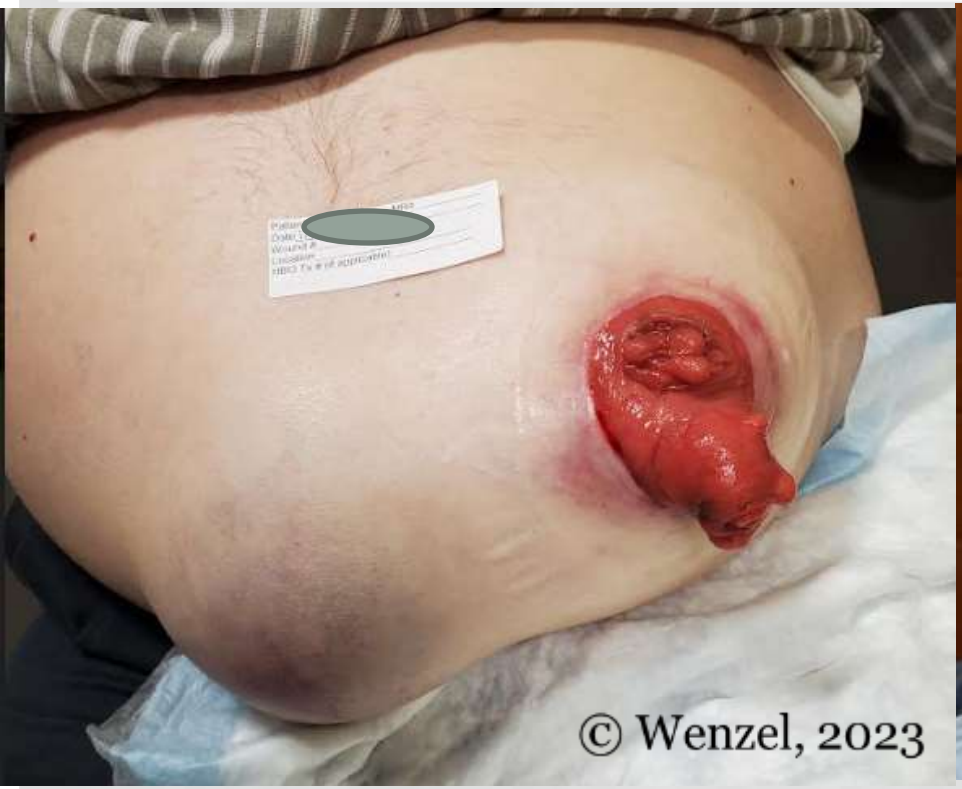
Occupation

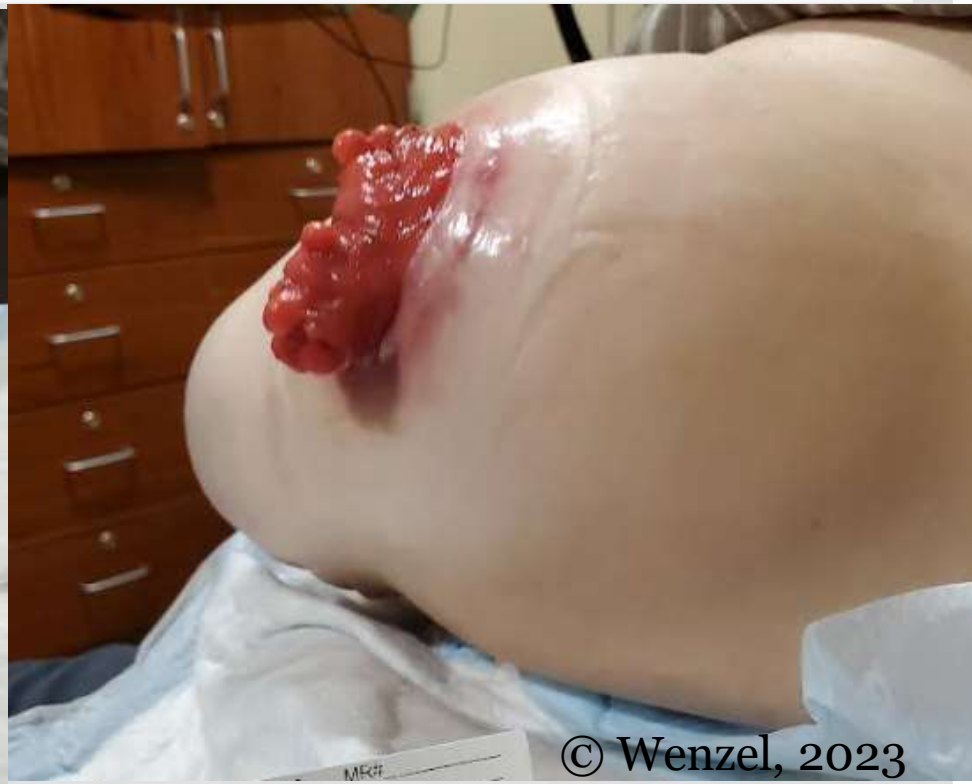
Prolapse

MEASURING

- Refer to Vendor recommendations – Worksheets obtain via websites
- Sitting/lying measurements
- Note size of hernia
- Look at folds of abdomen and love handles
- Note trunk length
- Note where the hernia is located (superior/inferior, circumferentially)
- Opening positioned in center or “x” inch from top/bottom

MEASURING DEMONSTRATION





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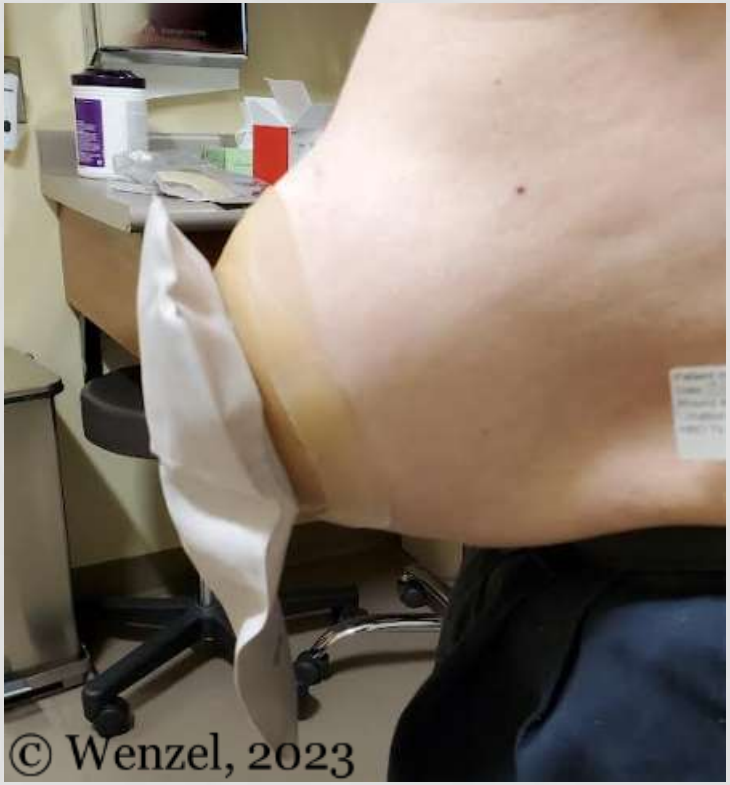

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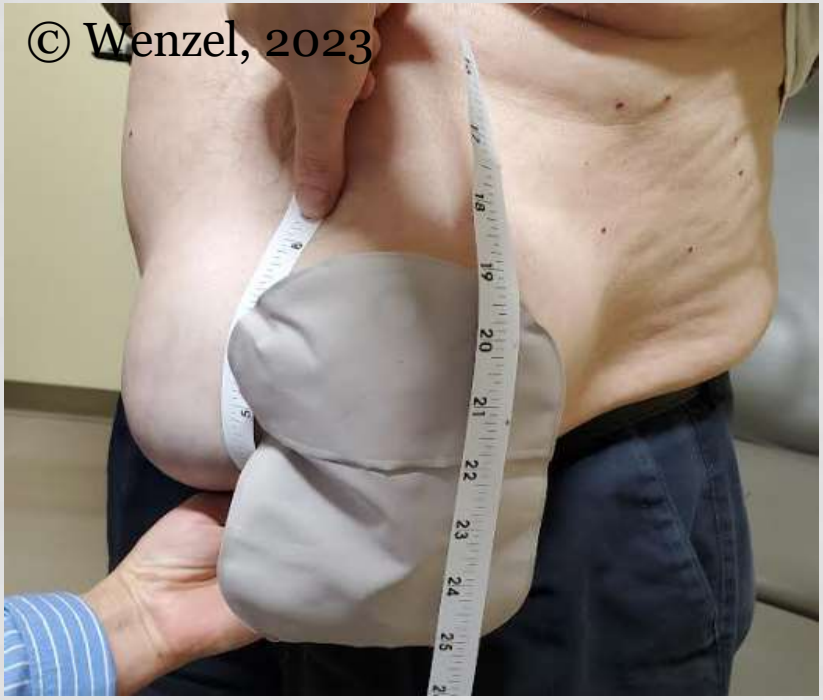

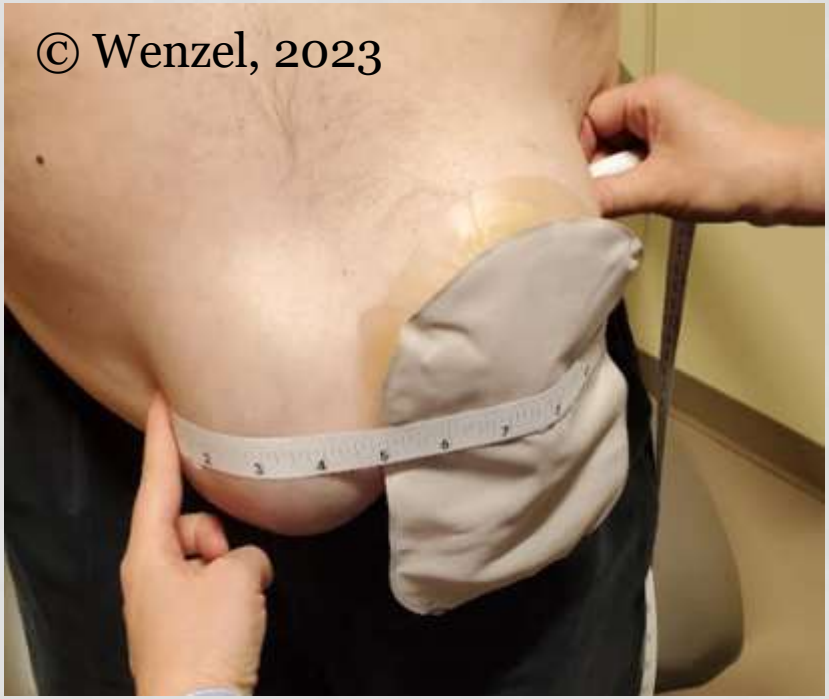

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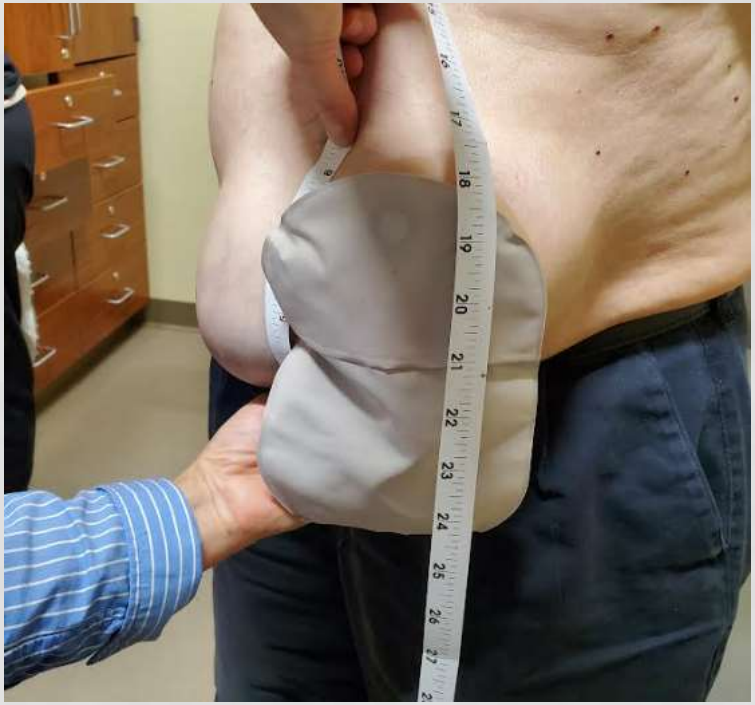

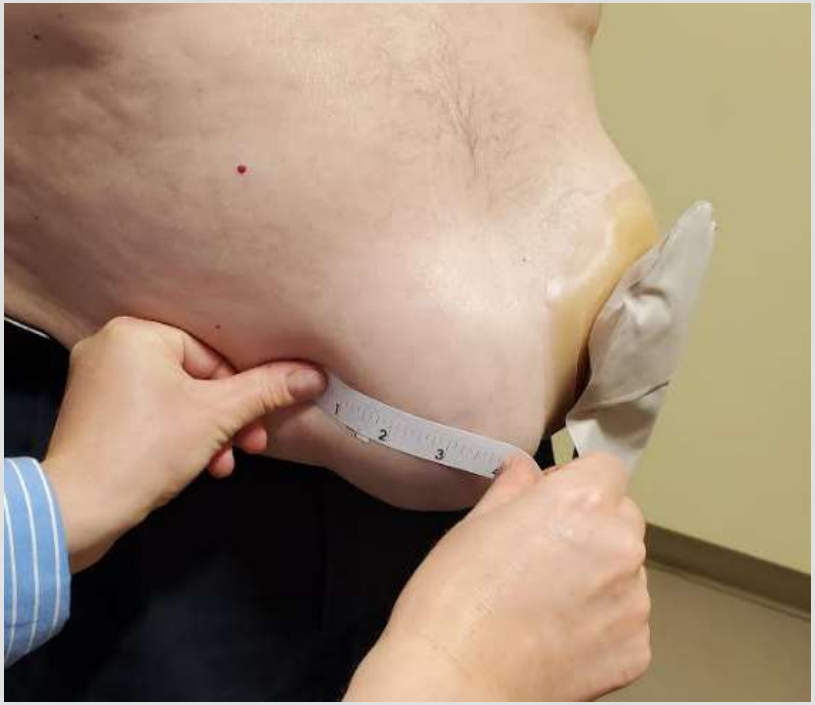

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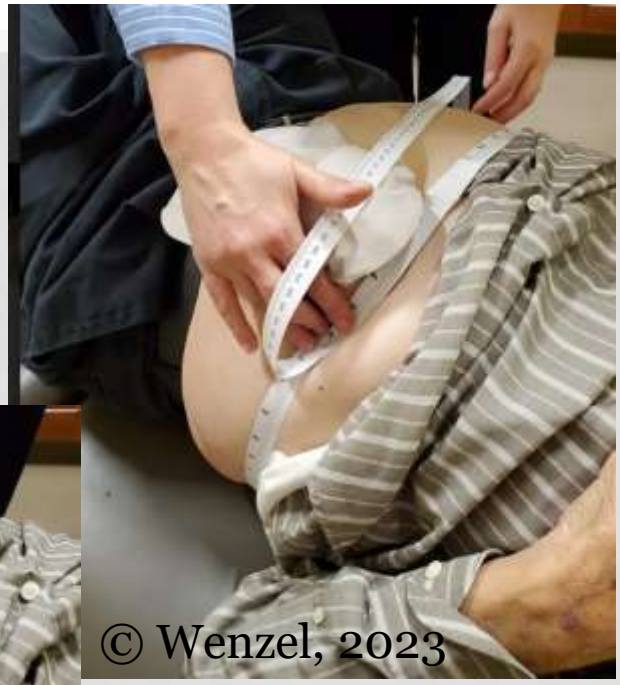
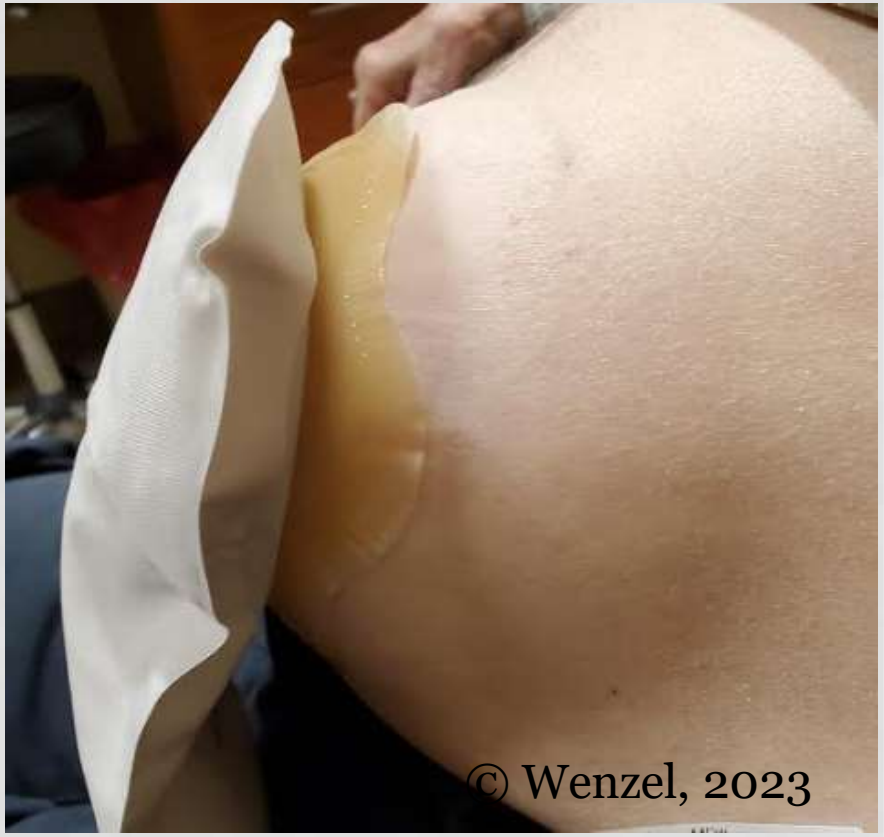


MEASURING DEMONSTRATION

Before



After

KNOW YOUR VENDORS

- Many hernia belt vendors
- Familiarize yourself with a few options
- Know suppliers who will run product through insurance (some products are not reimbursed)
- Custom made – out of pocket expense – CALL the manufacturer - $$$$$

QUESTIONS

REFERENCES

- Caldwell, J., & Hyman, N. (2019); Parastomal Hernias: A Surgeon and WOC Nurse Perspective. Slides 1-54.

- Pittman, J. (2022). Stoma Complications. In J. Carmel, J. Colwell & M. Goldberg (Eds.), Wound, Ostomy and Continence Nurses Society Core Curriculum: Ostomy Management (2nd ed., pp. 270-280). Wolters Kluwer.

- Russel, S. (2019). Exercise After Ostomy Surgery and Peristomal Hernia. *Journal of Wound, Ostomy and Continence Nursing* 46(3):p 215-218, May/June 2019| *DOI:* 10.1097/WON.0000000000000521. Obtained from https://journals.lww.com/jwocnonline/Fulltext/2019/05000/Exercise_After_Ostomy_Surgery_and_Peristomal.9.aspx

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