

cancer answers

Cancer Answers is a series of free public lectures, presented by *Cancer Care Nova Scotia*, on a variety of cancer-related topics. The lectures, delivered by cancer experts, are designed to raise awareness and educate participants about issues related to prevention, screening, early diagnosis, treatment, survivorship and palliative care.

Following each lecture, the presentations are posted on the *Cancer Care Nova Scotia* website @ www.cancercare.ns.ca



Surgical Treatment of Colorectal Cancer

What's new and what's not

Geoff Porter MD, FACS, FRCSC

CCNS Forum

October 12, 2006

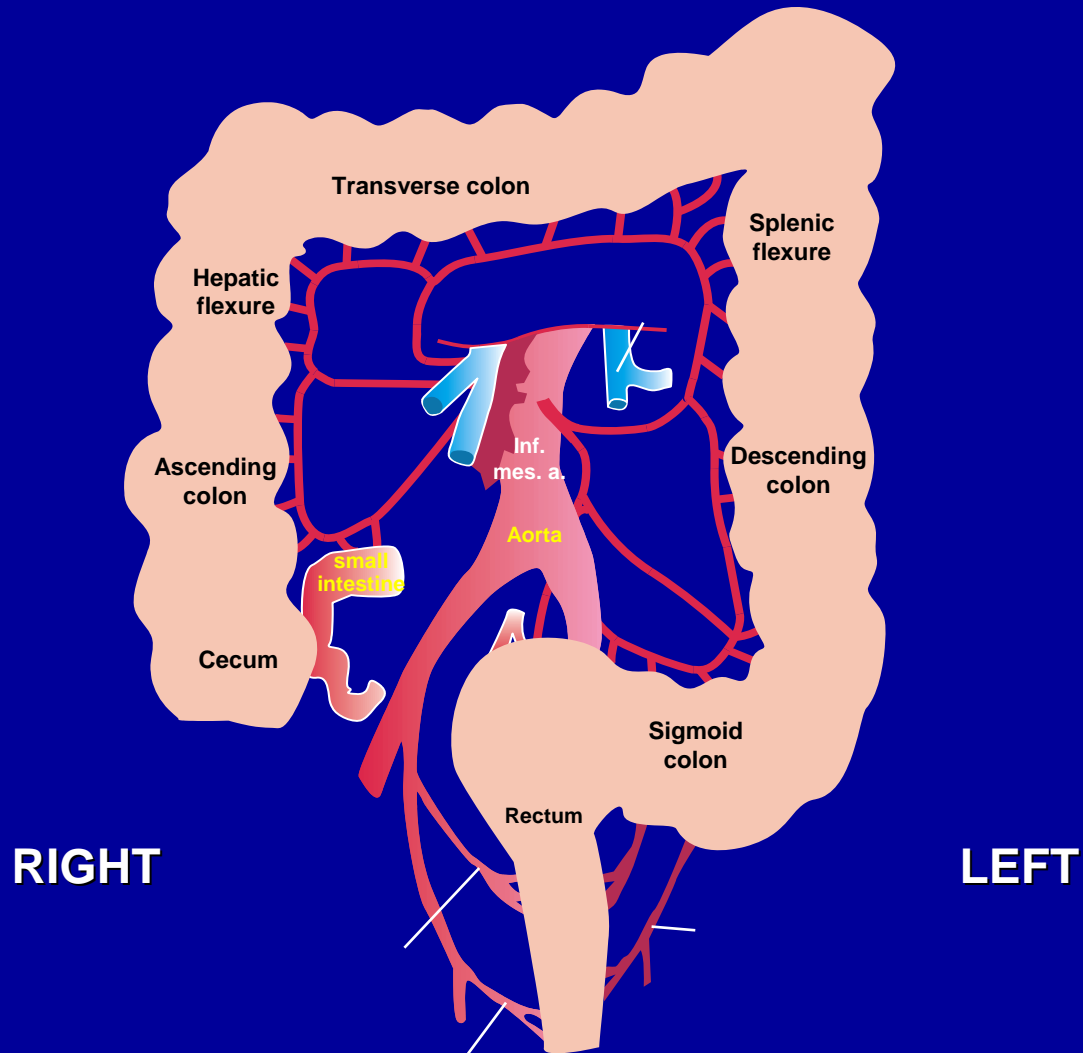
Colorectal Cancer Facts

- Second most common cancer
- Second most common cancer causing death
- Exciting progress
 - Screening and prevention
 - Chemotherapy
- Mainstay of potentially curative treatment
 - SURGERY

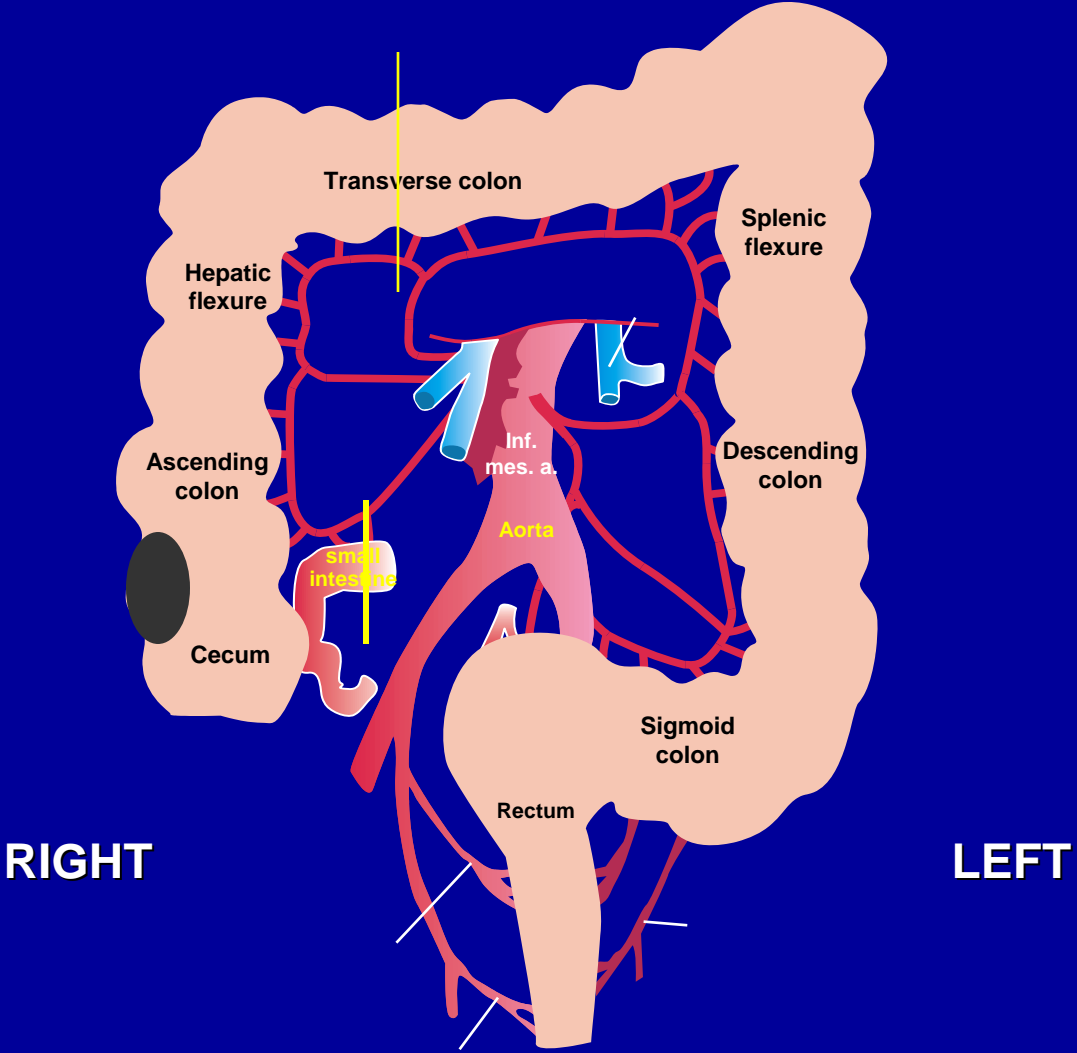
Principles of Surgery in Primary Colorectal Cancer

- Remove
 - the primary tumour with a margin of normal bowel
 - surrounding lymph nodes

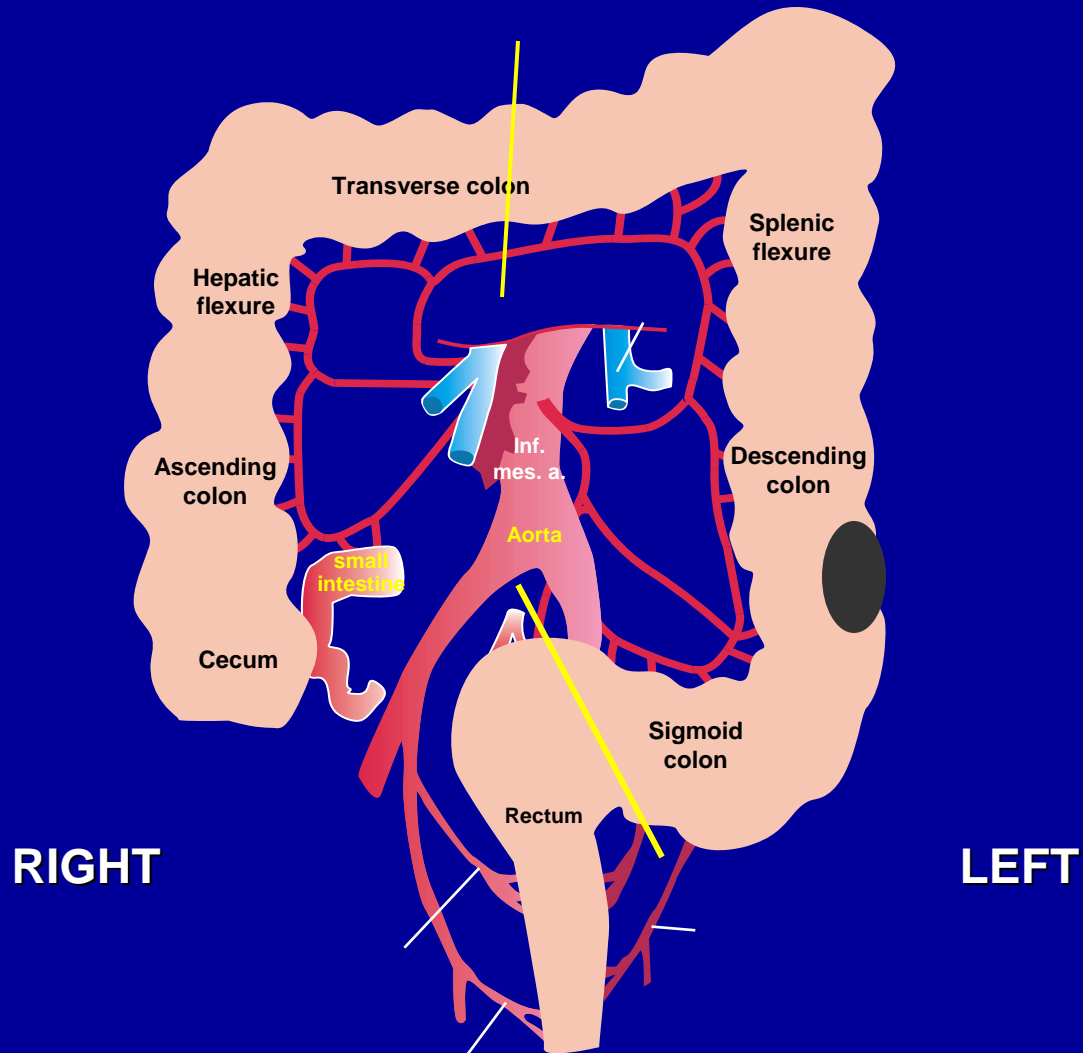
Anatomy



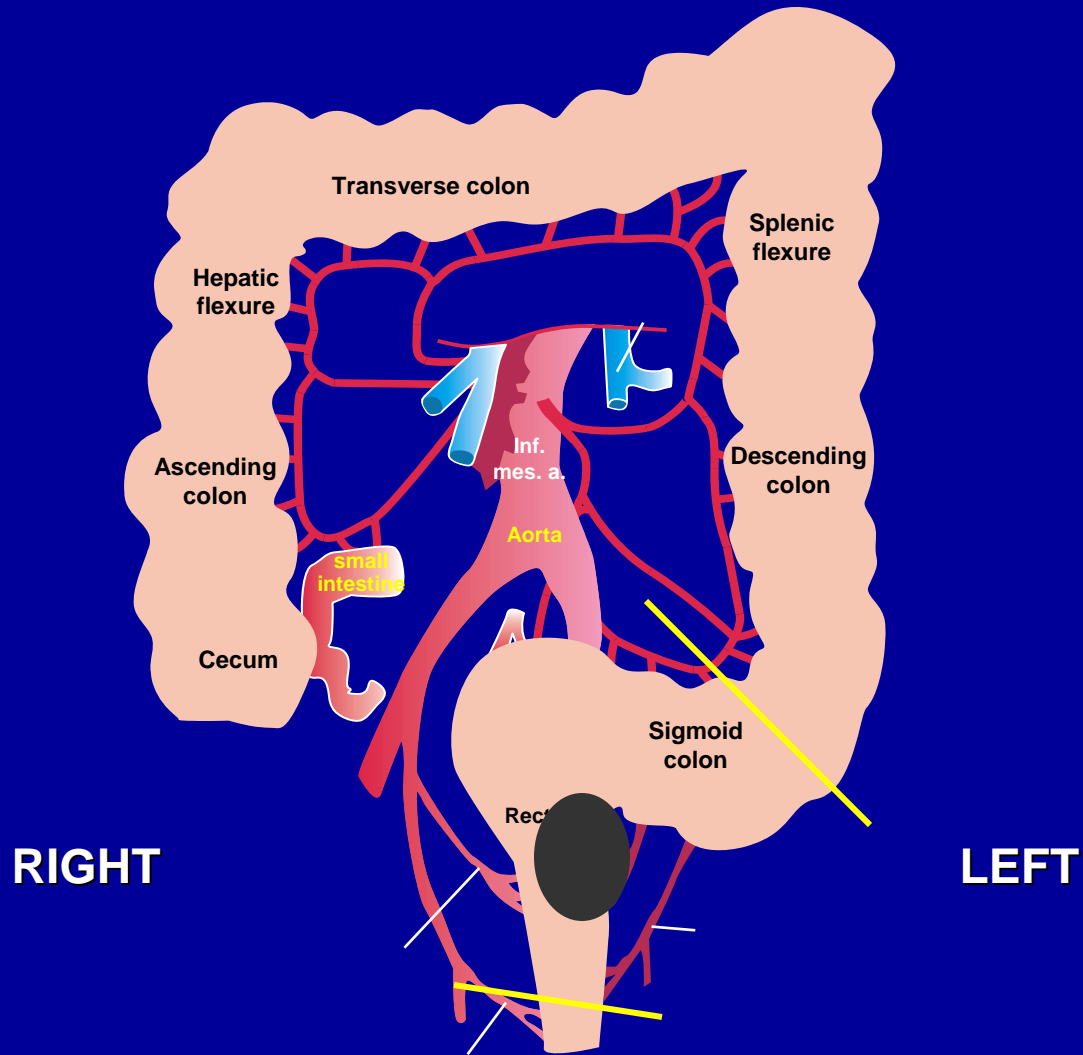
Right Colon Cancer



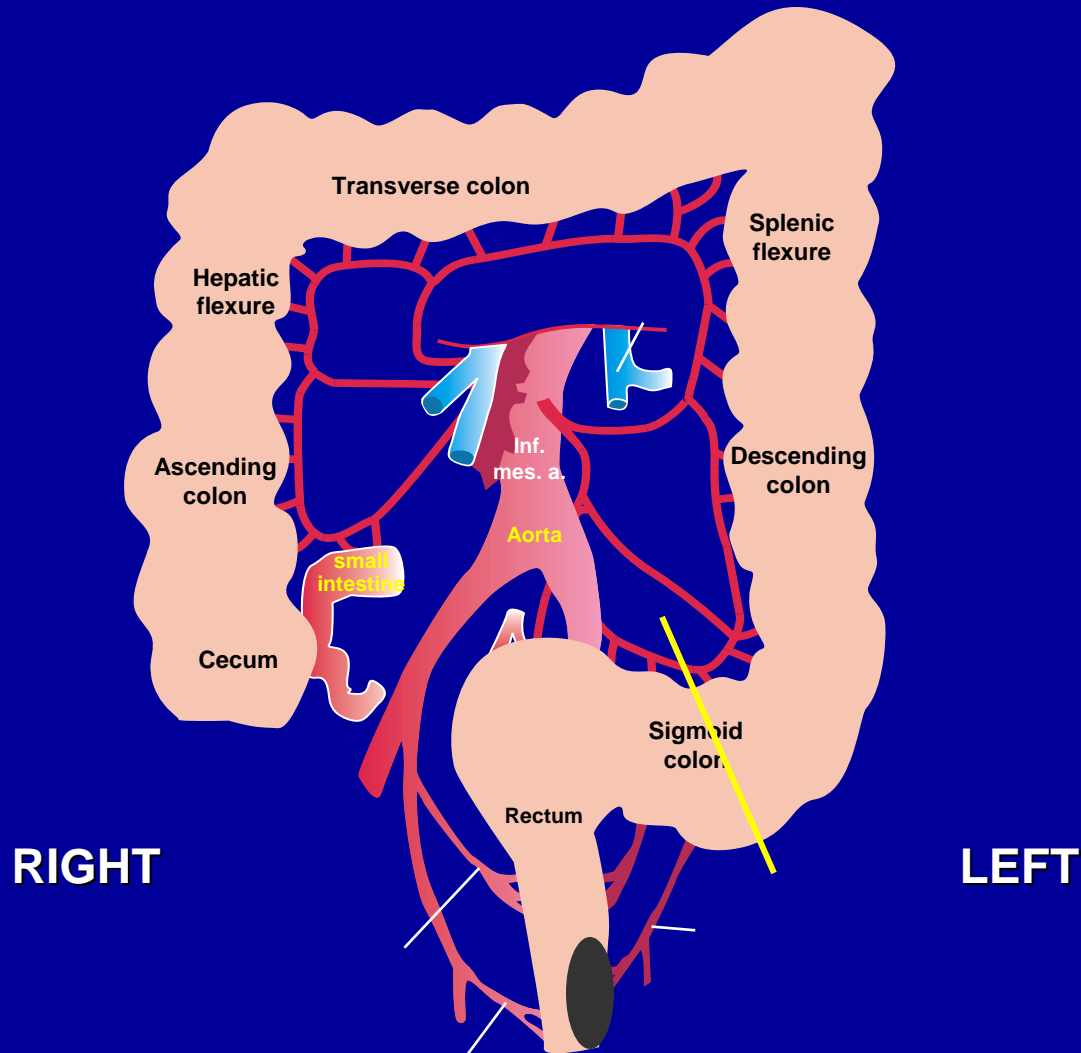
Left Colon Cancer

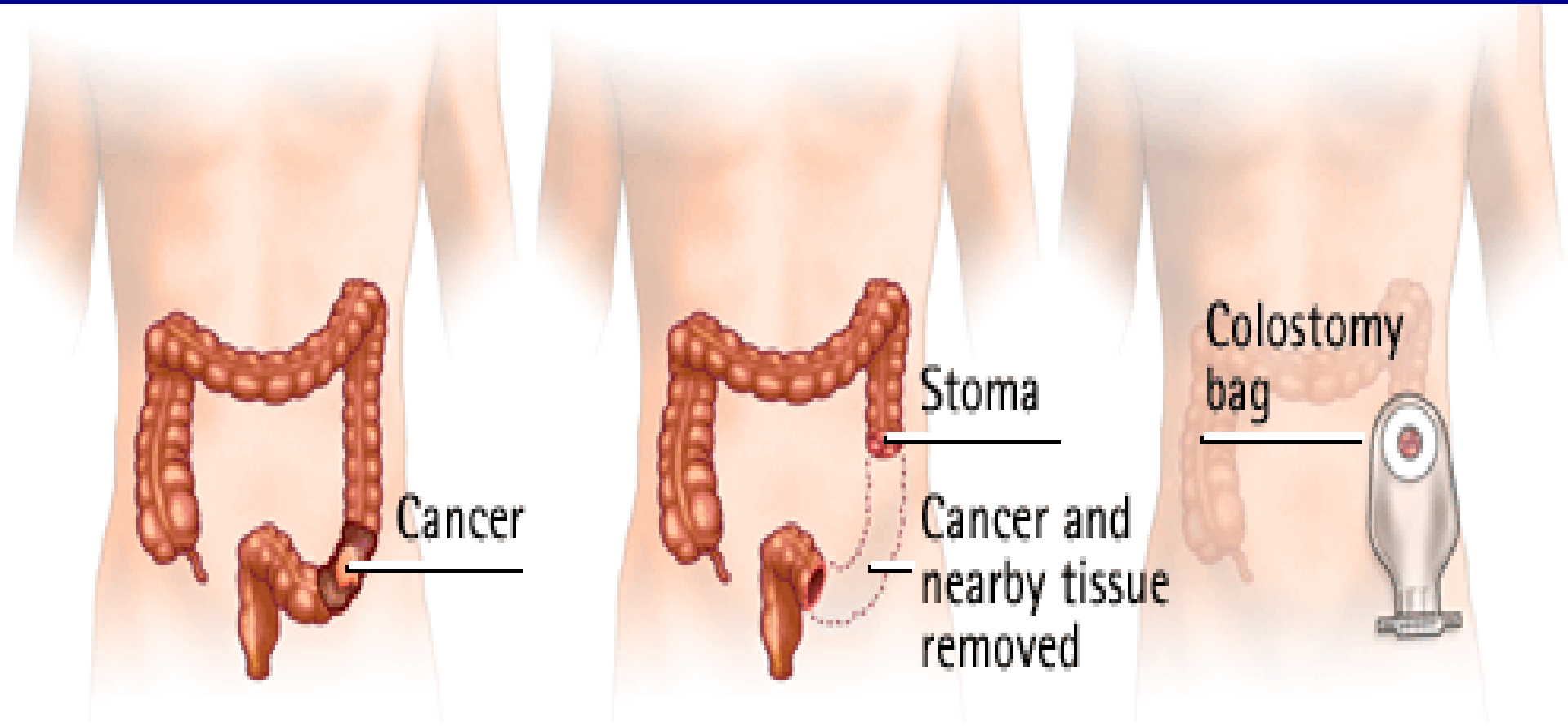


Rectal Cancer



Rectal Cancer – “Low Tumour”

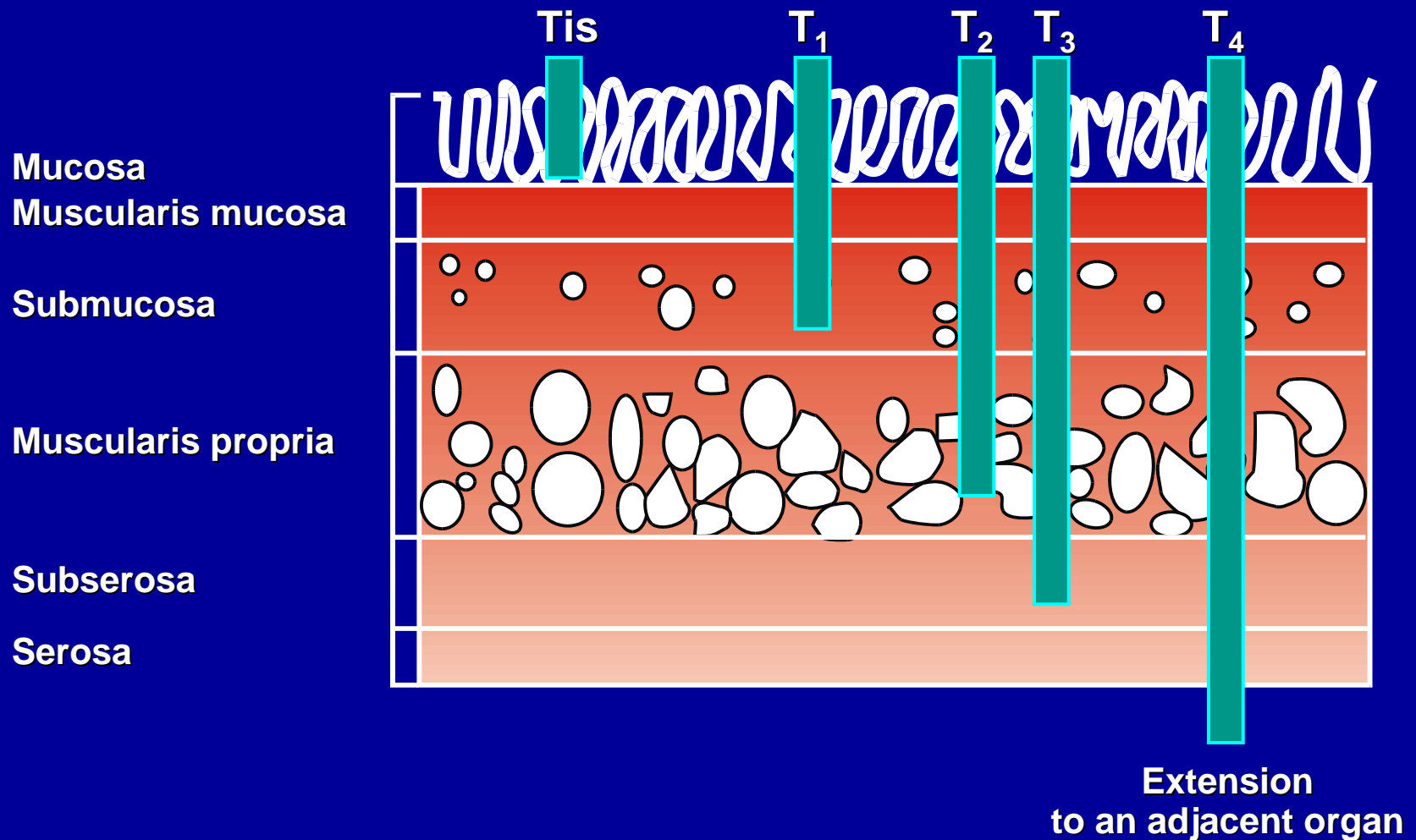




Importance of Surgery

- Treatment of cancer
- Relief of symptoms
- Staging

TNM classification, definition of T (primary tumor)



TNM classification, definition of N (nodes) and M (metastases)

Regional lymph nodes (N)

- NX** Regional nodes cannot be assessed
- N0** No regional lymph node metastases
- N1** Metastasis in 1 to 3 regional lymph nodes
- N2** Metastasis in 4 or more regional lymph nodes

Distant metastases (M)

- MX** Distant metastasis cannot be assessed
- M0** No distant metastasis
- M1** Distant metastasis

TNM Stage

AJCC/ UICC		Dukes*		
Stage 0	Tis	N0	M0	—
Stage I	T1	N0	M0	A
	T2	N0	M0	—
Stage II	T3	N0	M0	B
	T4	N0	M0	—
Stage III	Any T	N1	M0	C
	Any T	N2	M0	—
Stage IV	Any T	Any N	M1	—

Why Staging?

- Treatment strategies often dependant on stage
- Strong prognostic factor
 - For patient
 - Critical for clinical/translational research

Stage and Prognosis

	Disease Stage at Time of Diagnosis	5 yr. surv
Stage I	15%	>95%
Stage II	20%–30%	80%
Stage III	30%–40%	50-60%
Stage IV	20%–25%	<5%

What's New in Surgery for Primary Colorectal Cancer?

- Use of laparoscopy
- Importance of “Total Mesorectal Excision” for rectal cancer
- More aggressive surgery for metastatic disease

Laparoscopic Colorectal Surgery

- Same operation
- Smaller incisions
- ? As good as open surgery for cancer outcomes?
- ? Benefit over open surgery in terms of complications/recovery?





Laparoscopic vs. Open Surgery

Colon Cancer

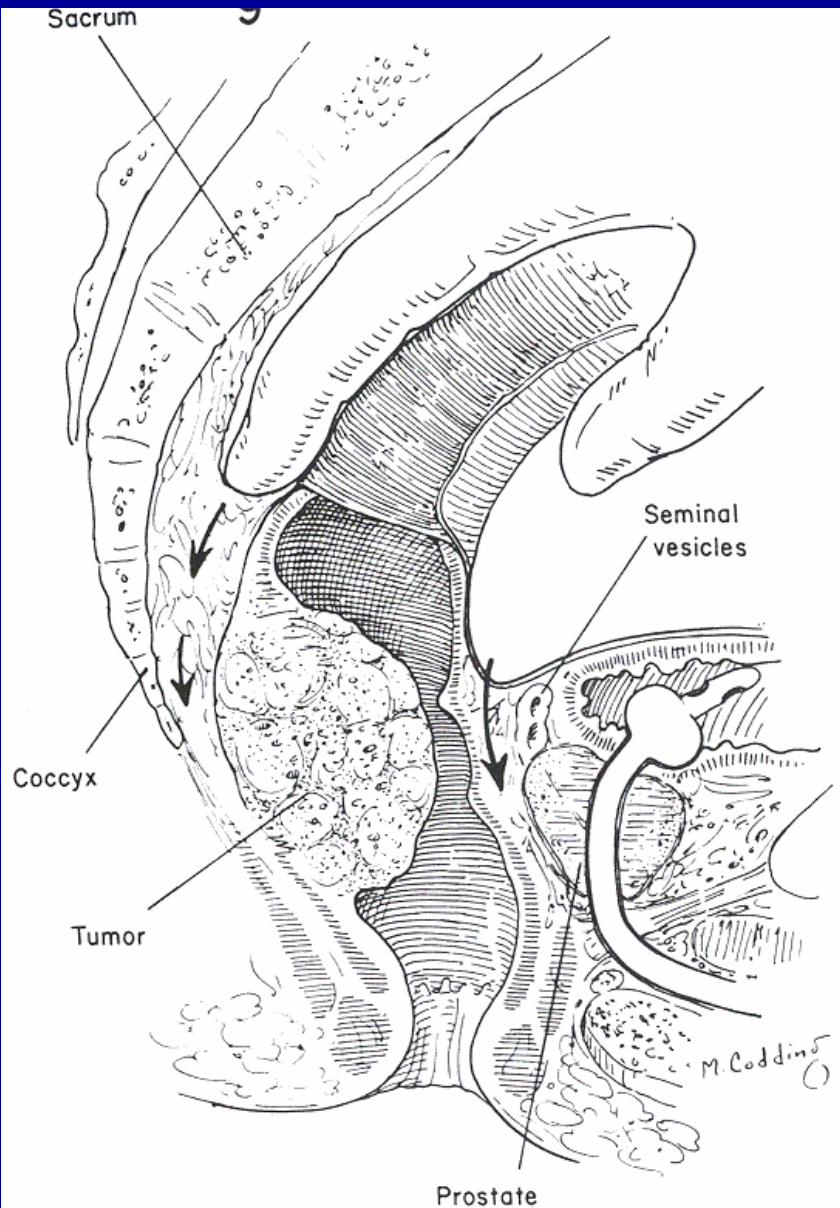
- 8 randomized trials
- Equally effective cancer treatment
- Operative mortality/complications the same
- Laparoscopic:
 - Longer time in OR, more expensive
 - Shorter length of stay in hospital (by ≈ 1 day)
 - Modest decreased pain, narcotic use
 - Overall quality of life same

Laparoscopic vs. Open Surgery

Remaining Questions

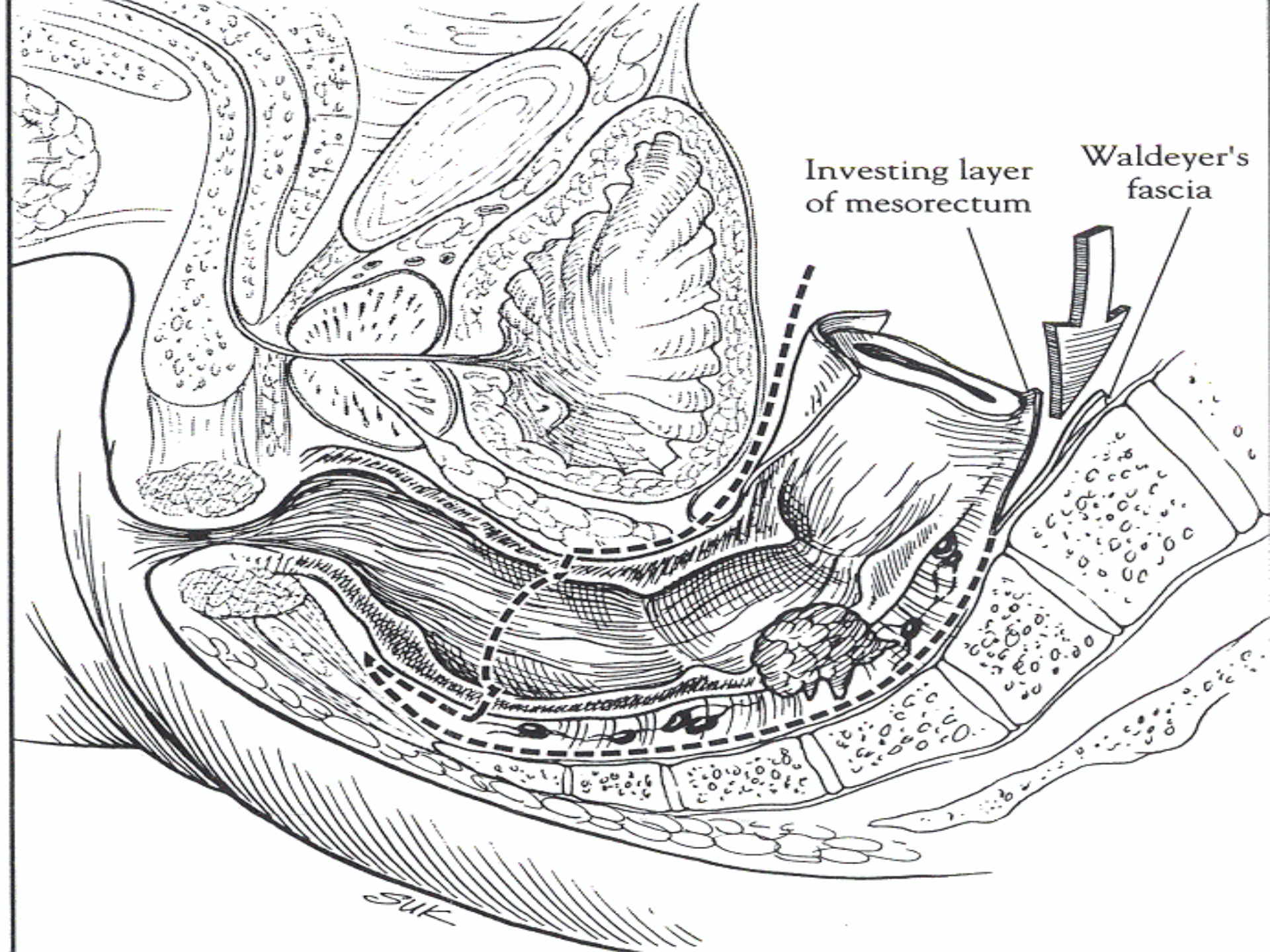
- What about rectal cancer?
- Will “real world” results be the same
- Are long-term outcomes better? e.g. hernias, bowel obstructions
- How do we decide/implement/monitor?

This is the Problem!



“The surgeon passes his right hand down into the hollow of the sacrum to free the rectum by blunt finger dissection”

Zollinger and Zollinger
Atlas of Surgical Operations
7th Ed. 1993



Investing layer
of mesorectum

Waldeyer's
fascia

SUK

Total Mesorectal Excision

- With attention to this technique, local recurrence rates should be $< 10\%$
- Still a role for radiation therapy, even with “good surgery”
- Questions
 - How do we ensure it is done?
 - Component of experience/training/volume of the surgeon

More Aggressive Surgery for Metastatic Colorectal Cancer

- Liver treatment
 - Resection
 - Ablation
- Lung Resection
- Surgery for Carcinomatosis
 - peritonectomy with intraoperative hyperthermic chemoperfusion

Patient selection is critical!

Summary

- Surgery is critical part of colorectal cancer therapy and its use is *increasing*
 - Most basic principles remain
- What the surgeon does technically is of paramount importance
 - For cancer
 - For function