

FIGHTTM
★
COLORECTAL CANCER

**OUR WEBINAR WILL BEGIN
SHORTLY**

Surgery Webinar



TODAY'S WEBINAR



01 QUESTIONS

Ask a question in the panel on the right side of your screen

02 WEBINAR ARCHIVE

Watch a recording of this webinar on the Fight CRC website. Visit [FightCRC.org](https://fightcrc.org)

03 TWEET ALONG!

Follow along on Twitter. Use the hashtag [#CRCWebinar](https://twitter.com/CRCWebinar)



The information and services provided by Fight Colorectal Cancer are for general informational purposes only. The information and services are not intended to be substitutes for professional medical advice, diagnoses or treatment.

If you are ill, or suspect that you are ill, see a doctor immediately. In an emergency, call 911 or go to the nearest emergency room.

Fight Colorectal Cancer never recommends or endorses any specific physicians, products or treatments for any condition.

TODAY'S PRESENTERS



Dr. Will Chapman
Colorectal Surgeon



Dr. Mark Soliman
Colorectal Surgeon



Dr. Robert Cleary
Colorectal Surgeon



Dr. Ryan Fields
Colorectal Surgeon

Surgery for Colorectal Cancer:

The What, Where, and Why

Will Chapman, MD

Department of Surgery
Washington University School of Medicine



NATIONAL LEADERS IN MEDICINE

Before we get started...

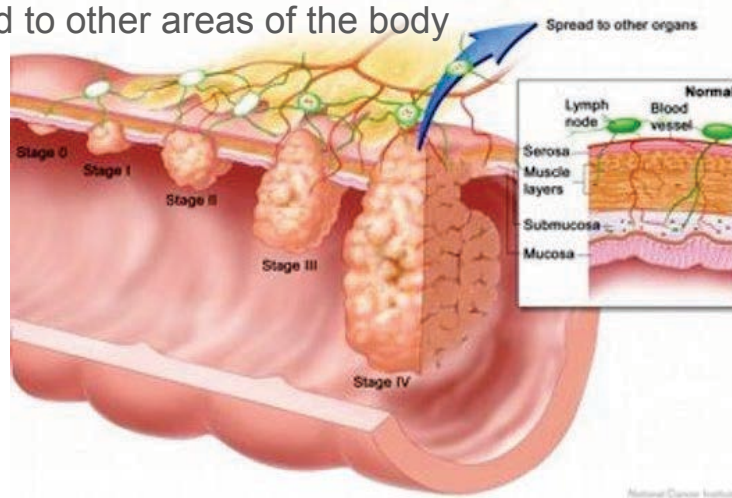
- **No conflicts of interest**
- **Additional Resources**
 - **F!GHT Colorectal Cancer**
 - www.fightcolorectalcaner.org
 - **American Society of Colon & Rectal Surgeons (ASCRS)**
 - Patient Portal – www.fascrs.org/patients
 - **National Cancer Institute**
 - Information for Patients - www.cancer.gov/types/colorectal

What are we fighting?

- "Colorectal cancer"

- Adenocarcinoma

- Mutations in cells lining the **colon** or **rectum** ...
- that invade through the bowel layers ...
- and spread to other areas of the body



Diagnosis and Staging

- **Diagnosis ("What is it?")**
 - Colonoscopy
 - Biopsy

- **Staging ("Where is it?")**
 - Determines treatment options and order
 - Chemotherapy
 - Radiation
 - Surgery

 - "What does this mean for survival?"
 - Depends on **MANY** factors



www.cancer.gov/types/colorectal/patient/colon-treatment-pdq

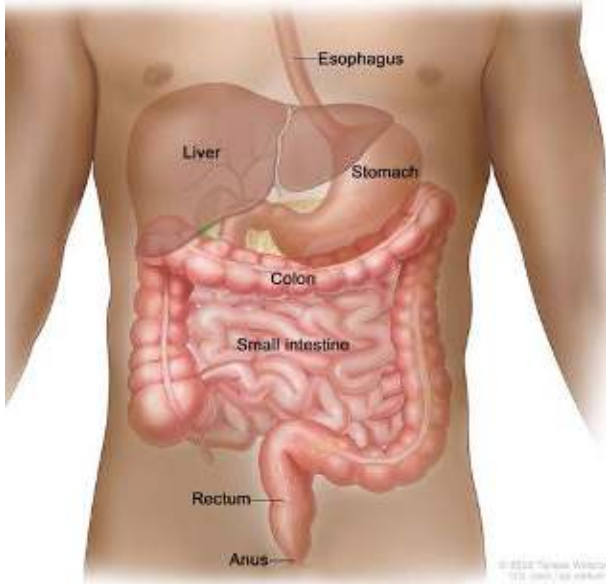
SEER stage	5-year relative survival rate
Localized	91%
Regional	72%
Distant	14%
All SEER stages combined	64%

www.cancer.org/cancer/colon-rectal-cancer/detection-diagnosis-staging/survival-rates

Surgical Principles (*in general*)

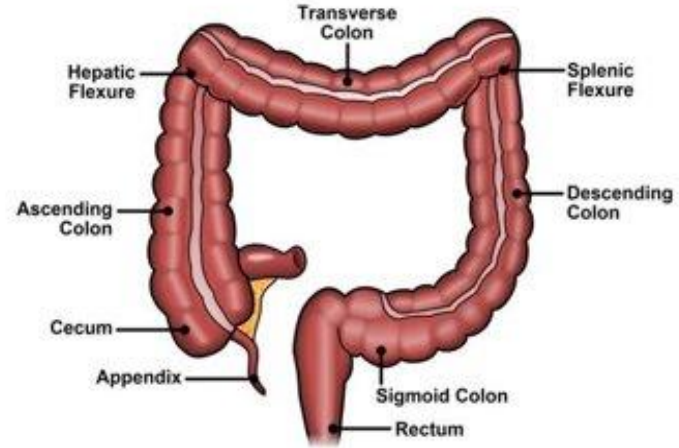
- **Eliminate Disease**
- **Ensure GI tract function**
- **Preserve quality of life**

Anatomy



www.cancer.gov/types/colorectal/patient/colon-treatment-pdq

Function

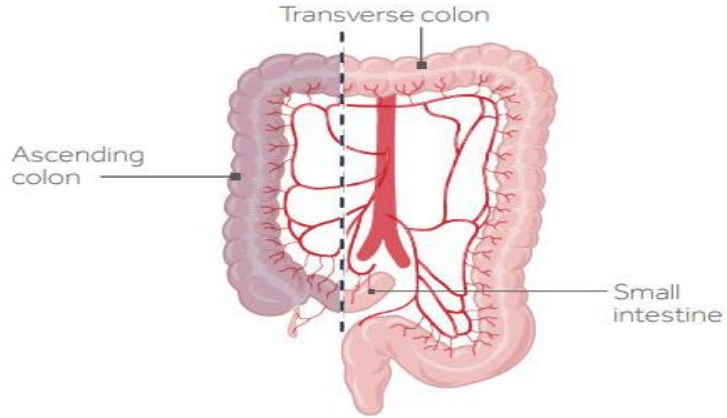


<https://fascrs.org/patients/diseases-and-conditions>

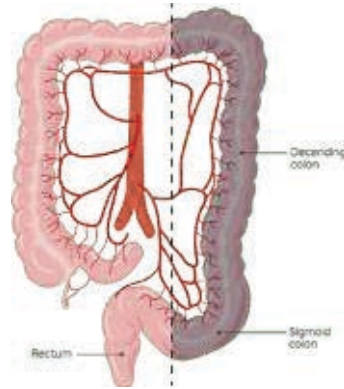
Colon – absorption
Rectum – storage
Anus – continence

Common Resections

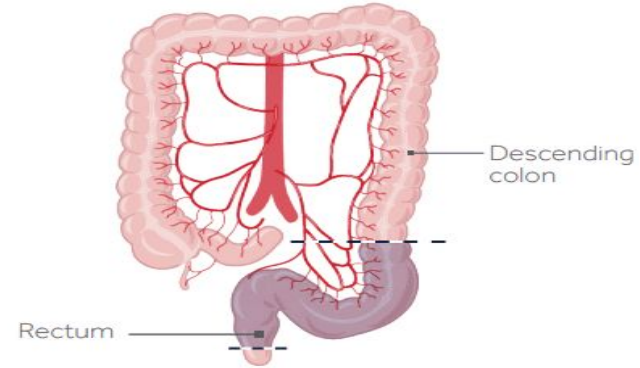
Right hemicolectomy



Left hemicolectomy



Anterior resection



<https://www.ccalliance.org/blog/patient-support/types-of-colorectal-cancer-surgery>

"Do I need an ostomy? For how long?"

Colostomy



www.cancer.gov/types/colorectal/patient/colon-treatment-pdq

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Colorectal cancer surgery modalities

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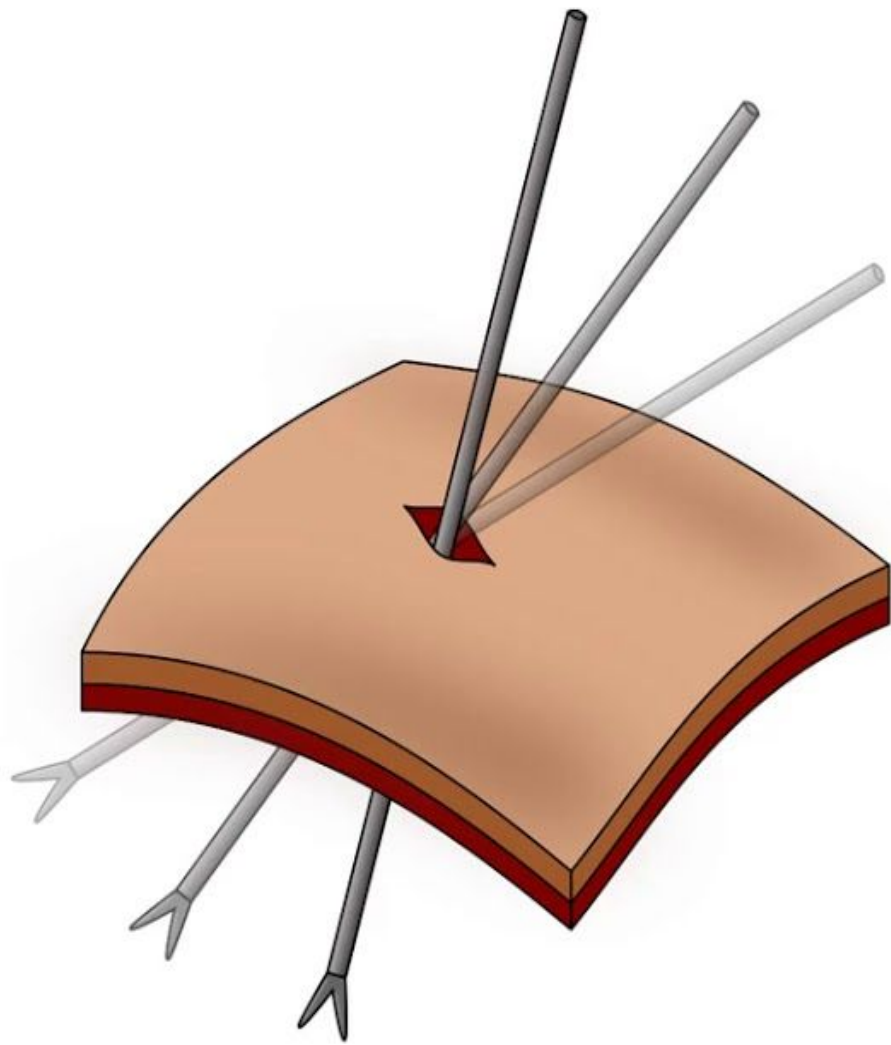


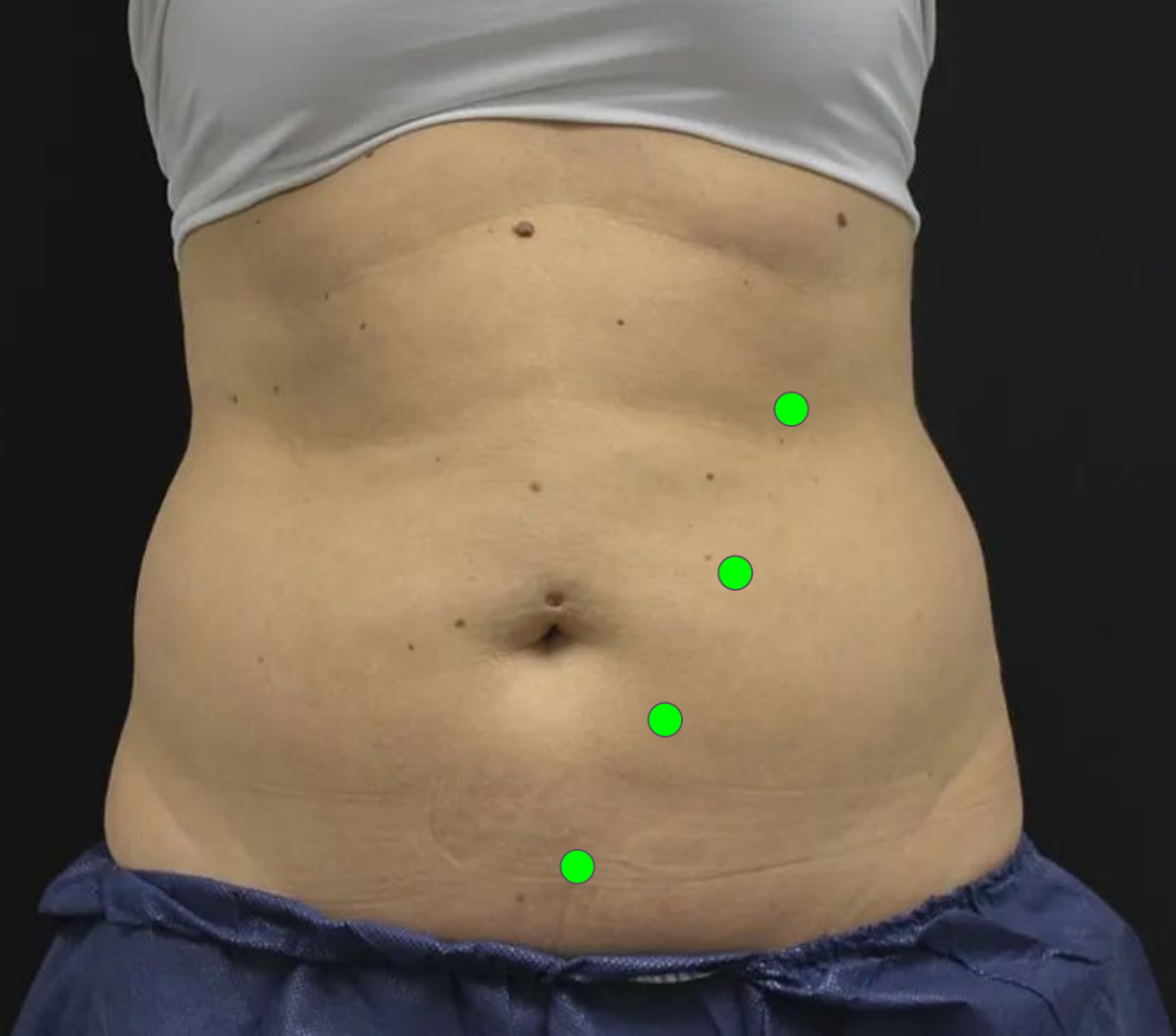
Traditional, open surgery





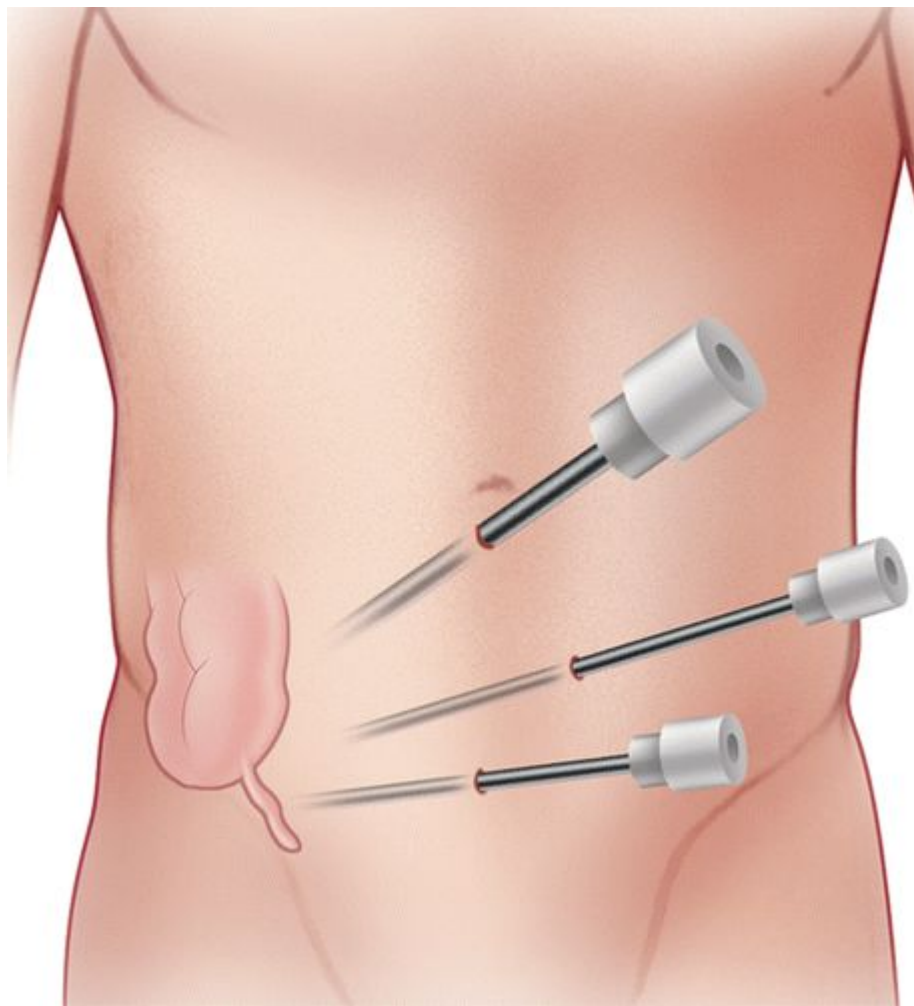
'Minimally Invasive' Surgery





Laparoscopic Surgery







Robotic Surgery

Also referred to as:

- robotic assisted surgery
- robotic assisted laparoscopic surgery
- minimally invasive robotic assisted laparoscopic surgery







1999 – GEN1



DA VINCI®

- 3D vision
- Intuitive motion
- EndoWrist® instrumentation

JANUARY - 2006



DA VINCI S®

- 3DHD vision (720p)
- Cross-quadrant access
- EndoWrist® instrumentation

APRIL - 2009



DA VINCI Si®

- 3DHD vision (1080i)
- Dual console
- Simulation
- Firefly® fluorescence imaging
- Advanced instrumentation

APRIL - 2014



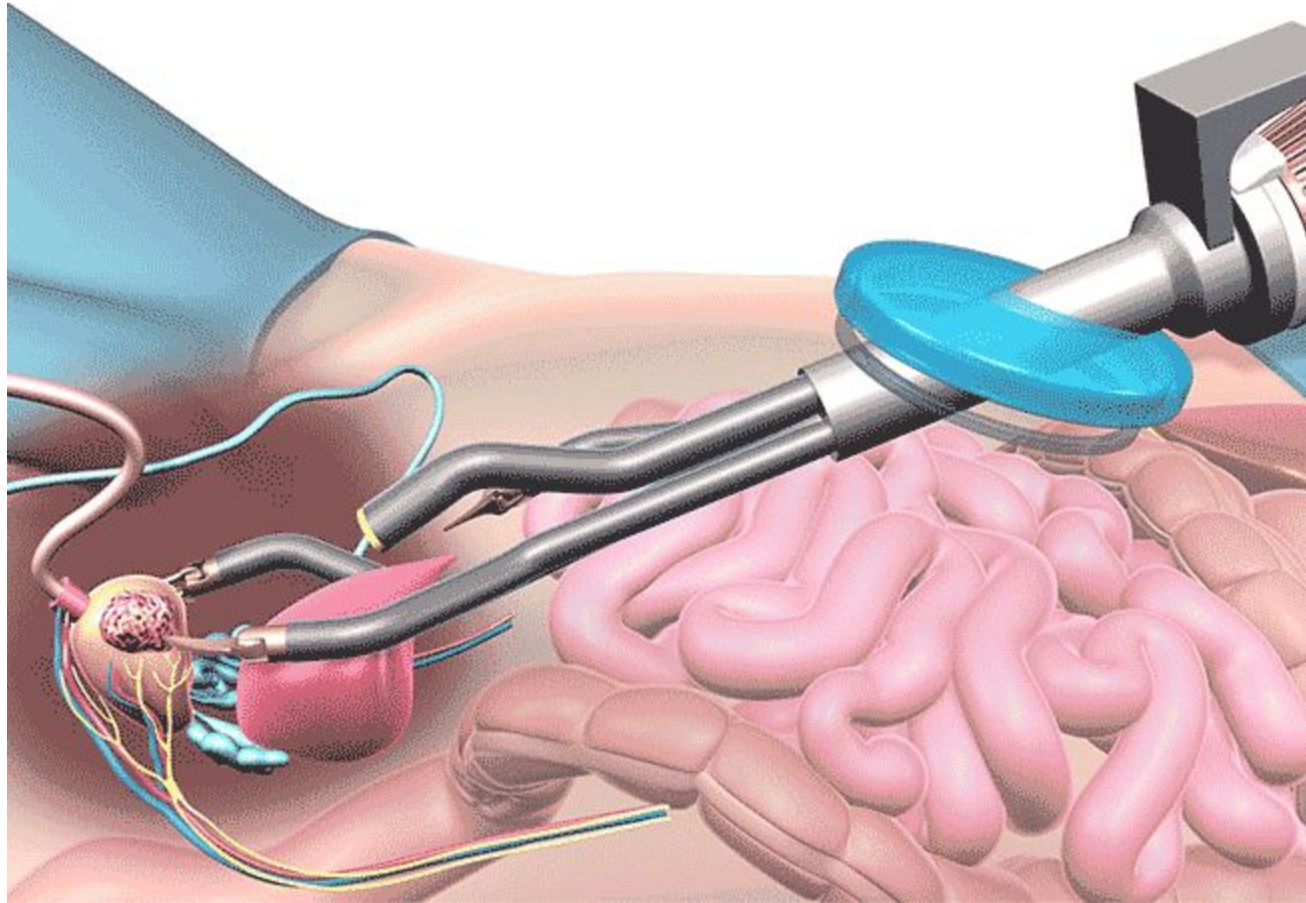
DA VINCI Xi®

- Multi-quadrant access
- Improved ease-of-use
- Enhanced 3DHD vision (1080p)
- Expanded instrument portfolio
- Integrated Table Motion

May - 2018



PN 104305-US Rev B 01/2018



What's the best approach?

Long term

- Cancer outcomes?
 - All the same
- Hernia
 - Minimally invasive surgery lower hernia rates (depending on technique used by surgeon)
- Overall recovery
 - All the same

Short term

- Pain, length of hospital stay, complications, cost, return to work, cosmesis
 - Minimally invasive surgery

Robotic vs. laparoscopic surgery?

- Minimally invasive surgery is the goal
- Robotics enables more patients to undergo a completed minimally invasive operation, compared with laparoscopy alone

Thank you!

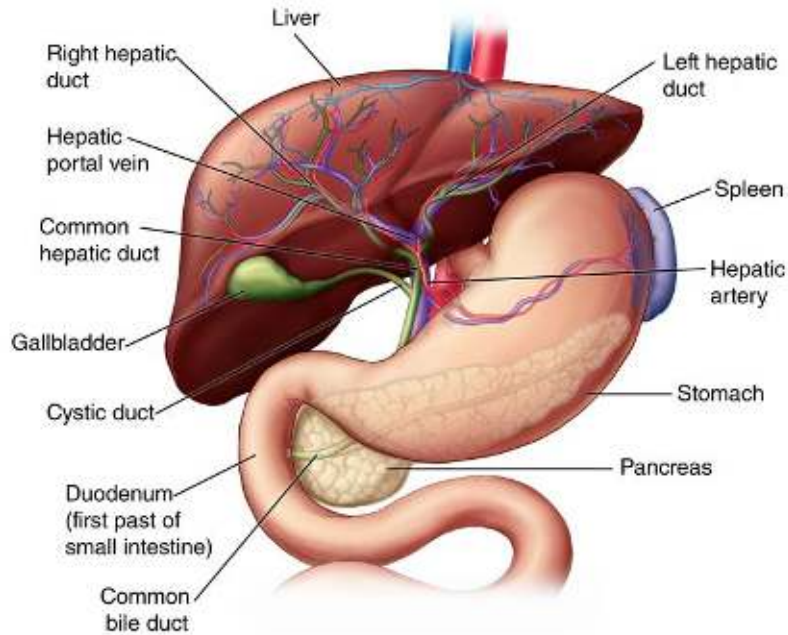
SURGERY FOR METASTATIC COLORECTAL CANCER

Ryan C. Fields, M.D., F.A.C.S.
Chief, Surgical Oncology



No Disclosures.

Liver □ the most common metastatic site

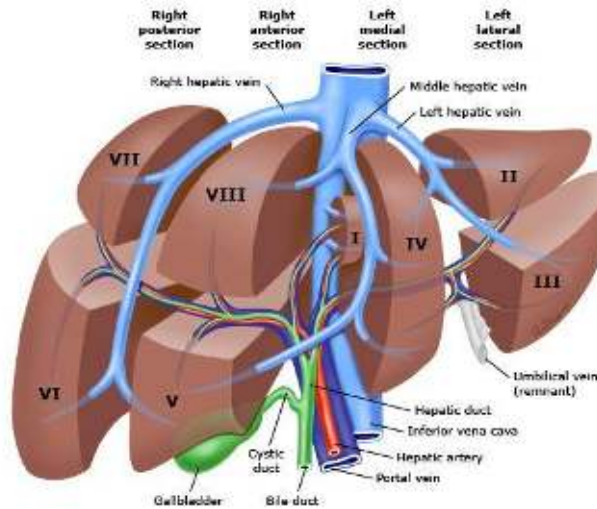


Facts about Metastatic Colorectal Cancer

- In patients with metastatic disease, the liver is the only site of disease in 50 % of patients.
- Surgery can be curative in 20-30% of patients.
- In patients who develop recurrent cancer after resection of liver metastases, 50% have liver-only recurrence.
- There are many strategies to treat liver metastases and most are done in combination with systemic therapy.

Liver Surgery (resection)

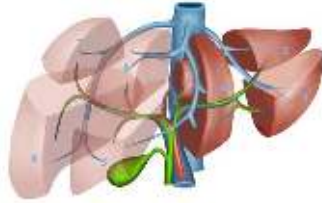
- The liver is an amazing organ:
 - Function □ master regulator of metabolism.
 - Anatomy □ like 8 organs in one!
 - Regeneration □ it grows back!



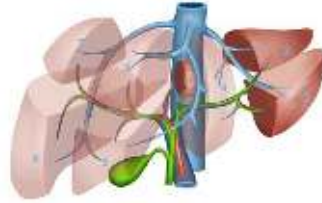
Liver Surgery (resection)

- Small resections
- Large resections
- Personalized to the patient, tumors open, laparoscopic, robotic

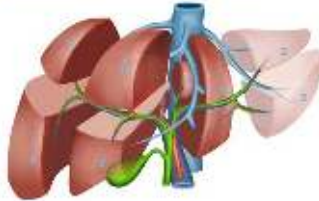
a Right hemihepatectomy



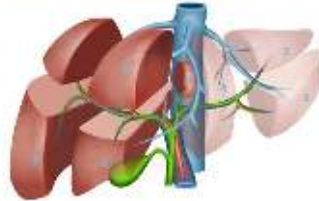
b Extended right hemihepatectomy



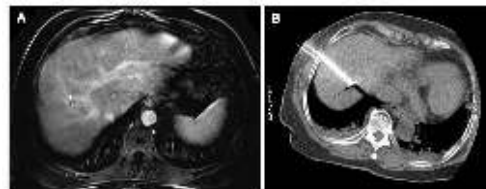
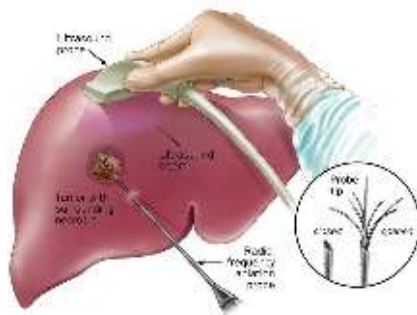
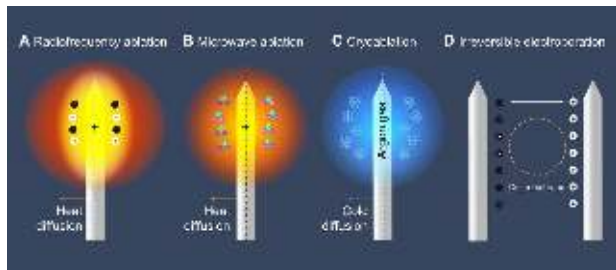
c Left lateral liver resection



d Left hemihepatectomy

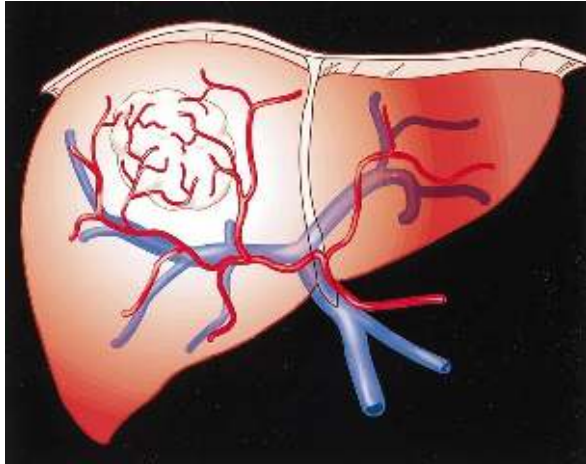


Liver tumor ablation



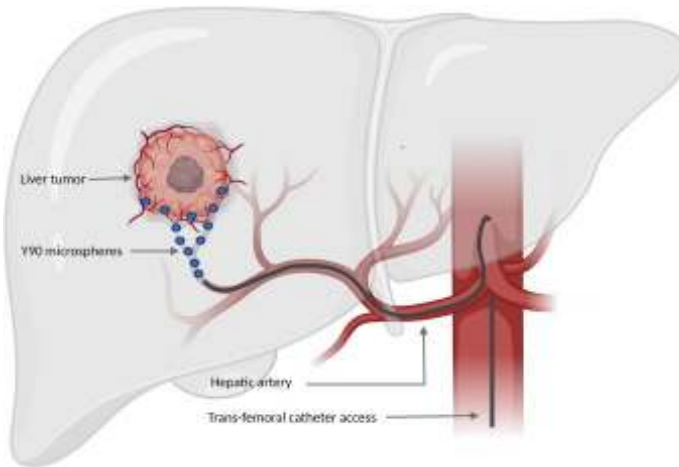
Hepatic arterial infusion pump (HAIP)

- Deliver chemotherapy directly to where it is needed □ the liver
- Chemotherapy is metabolized by the liver □ low side effects to the rest of the body.



Radioembolization (Yttrium-90, Y-90)

- Deliver radioactive particles directly to liver tumors.
- Both treats the tumor directly and cuts off the blood supply.



The Future

- **Genomics**
 - Tumor analysis
 - Circulating tumor DNA □ disease monitoring and early detection
 - Correlation with imaging □ “Radiomics”
- **Immunology and immunotherapies**
 - Extending immunotherapies to more patients
 - Cellular therapies (CAR T-cells, etc.)
 - Cancer vaccines

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QUESTION AND ANSWER

Type in your questions on the panel on
the right side of your screen



Fight Colorectal Cancer Mission

We FIGHT to cure colorectal cancer and serve as relentless champions of hope for all affected by this disease through informed patient support, impactful policy change, and breakthrough research endeavors.

A photograph of two female scientists in a laboratory. They are wearing white lab coats with a 'Promega' logo on the chest and blue nitrile gloves. The scientist on the right is using a pipette to transfer liquid into a small vial. The scientist on the left is smiling and looking towards the other. The background is a blurred laboratory setting. The entire image has a blue-to-purple gradient overlay.

THANK YOU