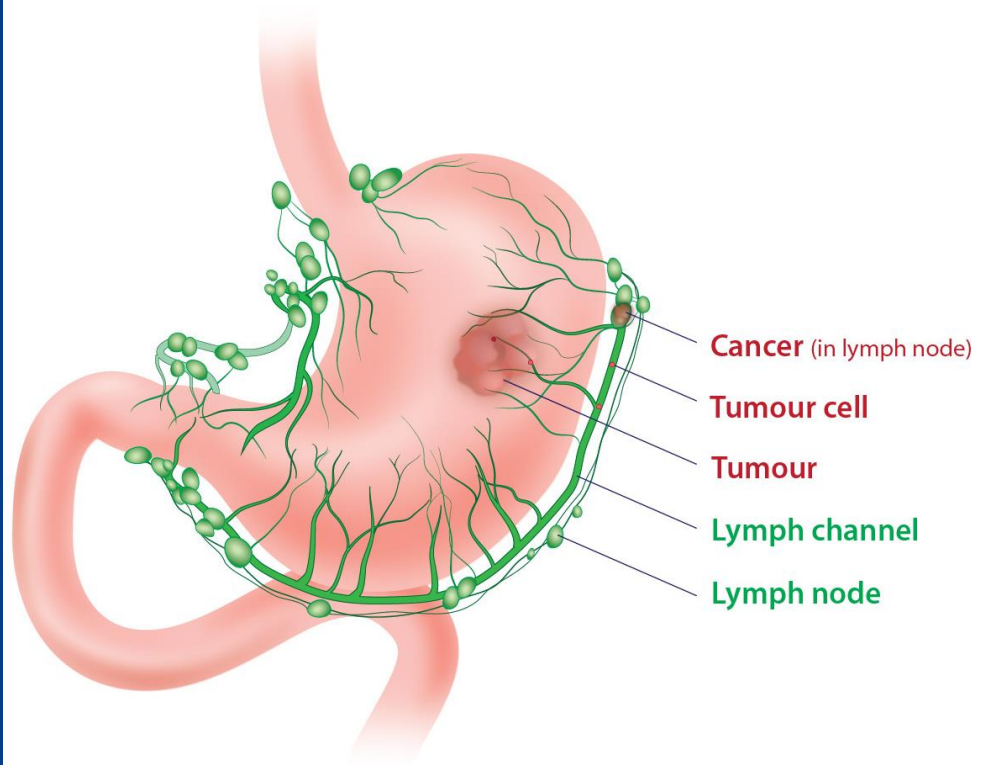
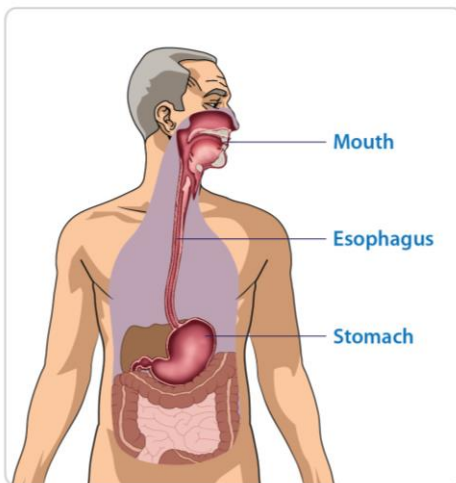


Sentinel Lymph Node Mapping for Early Gastric Cancer: Clinical Trial

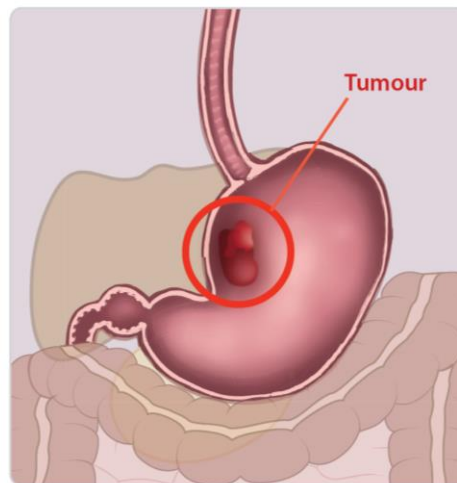
Dr Carmen Mueller



Approximately 24,000 new cases of gastric (stomach) cancer are diagnosed every year in North America



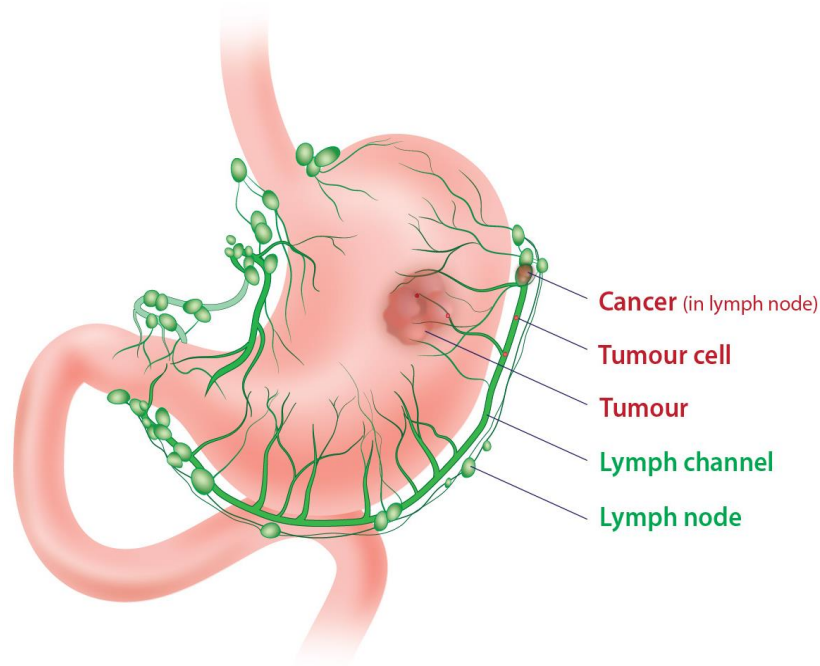
Stomach cancer(Figure A)



Stomach cancer starts in the lining of the stomach, and as it grows it can spread to the lymph nodes and eventually other organs. EARLY gastric cancer (*Figure A*) is cancer that is small and has not gone to the lymph nodes or other organs. About 15% of patients with stomach cancer in North America are diagnosed at this early stage.

Unfortunately, in many patients with early gastric cancer, our current technology cannot accurately tell which patients have cancer in the lymph nodes and which do not.

(Continued)

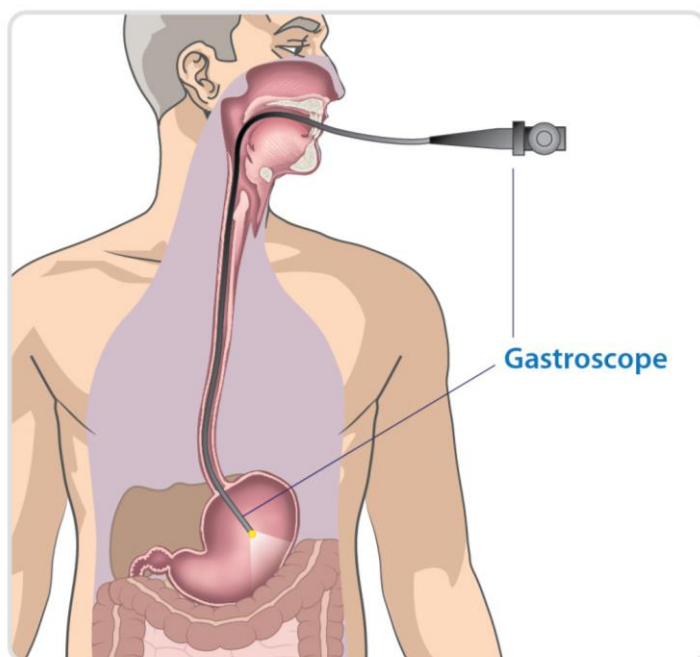


Microscopic cancer in a lymph node (Figure B)

This is because the cancer may be microscopic - too small to detect by CT, PET scan or endoscopic ultrasound (*Figure B*).

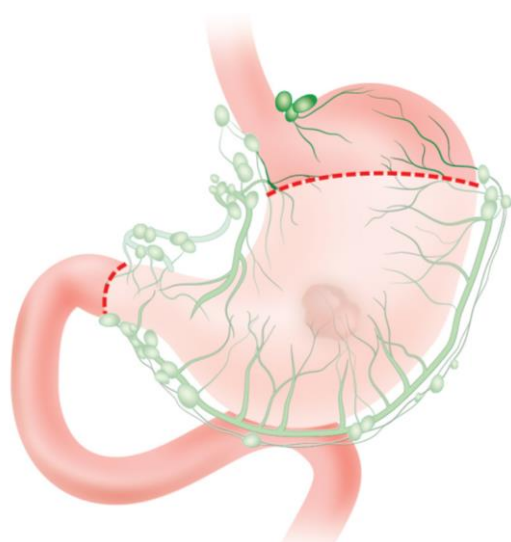
For early gastric cancer patients with VERY LOW risk of lymph node metastases, the cancer can be safely removed through the mouth (*Figure C*), without requiring removal of part of the stomach or the lymph nodes. This procedure is called [Endoscopic Submucosal Dissection](#)

For everyone else however, the current standard care is to perform an operation to remove part of the stomach and all the surrounding lymph nodes to be sure the cancer is completely removed (*Figure D and E*). However, only about 20% of these patients ultimately have cancer in the lymph nodes, meaning a large operation may have been avoidable for most patients. We just can't tell who these patients are with our current technology.

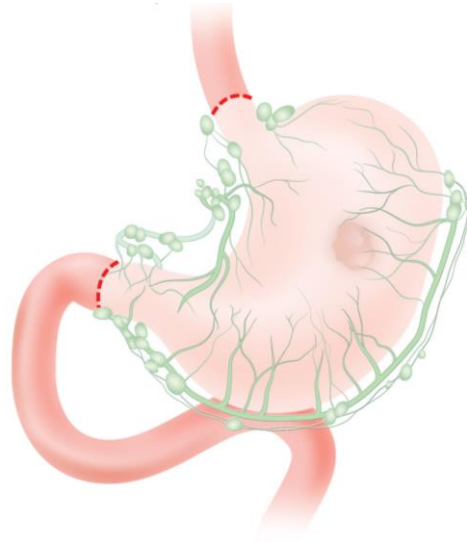


Gastroscopy (Figure C)

(Continued)



Subtotal Gastrectomy (Figure D)
This surgery requires partial removal of the stomach and lymph nodes



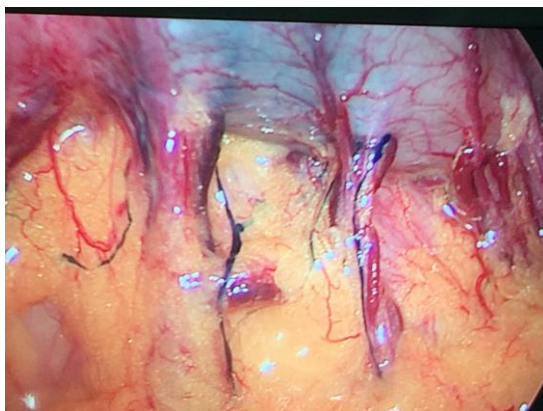
Total Gastrectomy (Figure E)
This surgery requires removal of the stomach and lymph nodes

GASTRIC CANCER SENTINEL LYMPH NODE SAMPLING (Figure F and G) is a novel technique pioneered in Asia which allows surgeons to tell which patients with early gastric cancer have cancer in the lymph nodes and which do not. This technique has never been studied in North America.

The Division of Thoracic and Upper Gastrointestinal Surgery at the Montreal General Hospital is the first

North American site to trial this new technique. This research was generously sponsored by the Society for Surgery of the Alimentary Tract through a research grant to [Dr. Carmen Mueller](#), the study principal investigator. We are currently comparing this new technique with standard care, and expect the trial to continue for 2-3 years.

Interested patients with gastric cancer who have not had surgery are encouraged to contact us for possible study enrollment.



Injected dye traveling from tumor to nearby lymph nodes (Figure F)



Sentinel lymph nodes coloured blue by injected dye (Figure G)