



Endometrial Carcinoma Study

What is endometrial cancer?

Endometrial cancer develops in the cells that form the inner lining of the uterus, or the endometrium, and is one of the most common cancers of the female reproductive system among American women. In 2010, approximately 43,000 women in the United States were estimated to have been diagnosed with and almost 8,000 to have died of endometrial cancer.¹ This cancer occurs most commonly in women aged 60 years or older. About 69% of endometrial cancers are diagnosed at an early stage, and as a result, about 83% of women survive five years following the time of diagnosis. [Additional information on endometrial \(uterine\) cancer.](#)

What have TCGA researchers learned about endometrial carcinoma?

- Four molecular subtypes of endometrial cancer are: POLE ultramutated, microsatellite instability hypermutated, copy number low, and copy number high.
- Endometrial cancer shares genomic features with serous ovarian cancer, the basal-like subtype of breast cancer, and colorectal cancer.
- Some endometrioid and serous endometrial tumors are molecularly distinct, while others are similar, suggesting some may benefit from a common treatment.
 - Serous and some of the endometrioid tumors are characterized by frequent mutations in *TP53*, extensive copy number alterations, and few methylation changes.
 - Other endometrioid tumors are characterized by few copy number alterations, scarce mutations in *TP53*, and frequent mutations in *PTEN* and *KRAS*