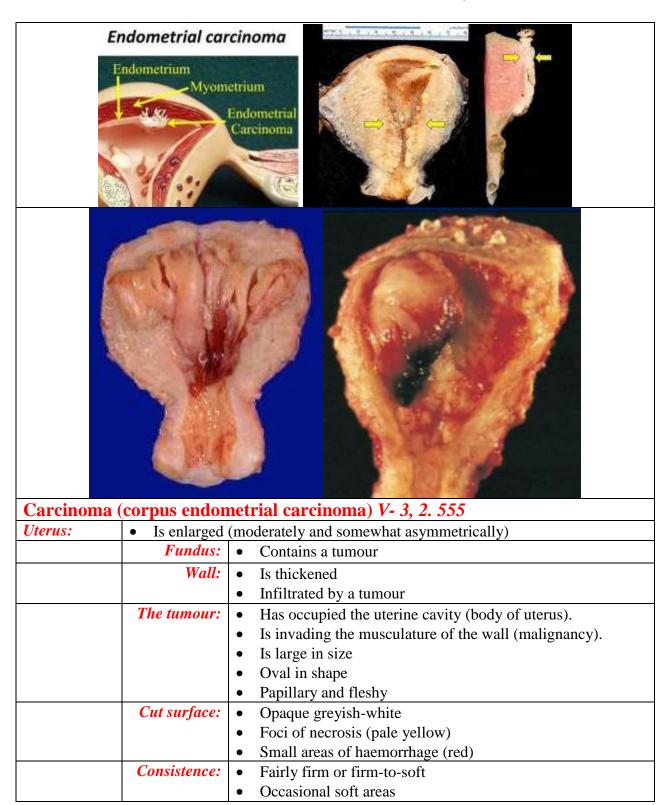
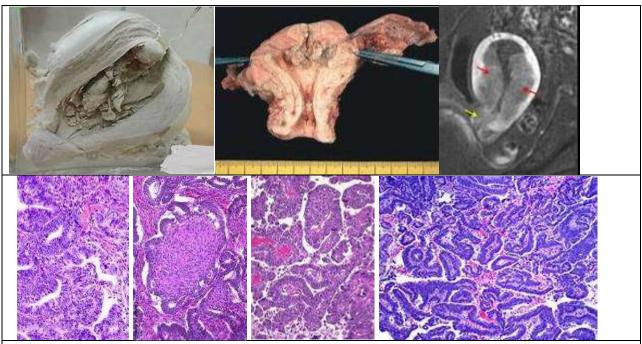
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N.B.:

Carcinoma of the body of the uterus is less common than that of the cervix and it occurs usually later in life (after menopause) with no particular relation to child-birth.

The tumour begins in the endometrium of the fundus, spreads superficially and protrudes in the cavity of the uterus.

The papillary form is commoner than the infiltrating form.se

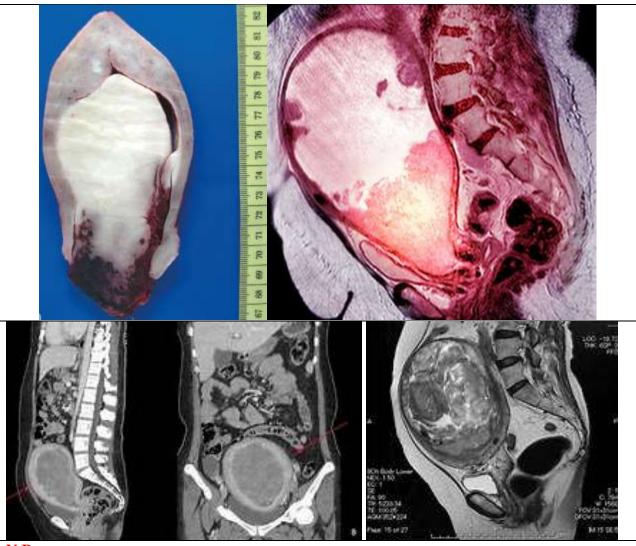
Means of spread:

- 1. Direct continuity through myometrium \rightarrow perforation \rightarrow peritonitis.
- 2. Implantation or through the uterine tube to the ovary...
- 3. Lymphatics to regional lymph nodes (para-vertebral).
- 4. Blood stream to lungs, bones, liver and other organs.

Clinically,

- The tumour (which is asymptomatic till deep penetration then → irregular vaginal bleeding + leucorrhoea) may be associated with features that point to:
 - (1) Estrinism and oestrogen stimulation,
 - (2) Pituitary hyper-activity that underlies ovarian changes which stimulate endometrial hyperplasia and
 - (3) Predominance in the obese, diabetic nulliparous who have hypertension.

Sarcoma (uterus)		
Uterus:	Is enlarged	
	Shows a tumour	
The tumour:	Large in size	
	Pale opaque and homogeneous	
	With areas of haemorrhage	
	Marked areas of necrosis	
	Is locally invading the surrounding tissue	
	Evidence of infiltration (malignancy)	
Consistence:	Variable (soft-firm to fleshy elastic)	



N.B.:

Sarcoma is a rare tumour in the uterus;

- A malignant change in a myoma (Leiomyosarcoma) and may be becoming soft, homogeneous, and with haemorrhage and/or cyst formation,
 Endometrial stromal sarcoma.

FIGO Staging

Based on surgical & pathological evaluation.

Stage 0: Atypical hyperplasia.

Stage I: Tumor limited to the uterus

I A: Limited to the endometrium

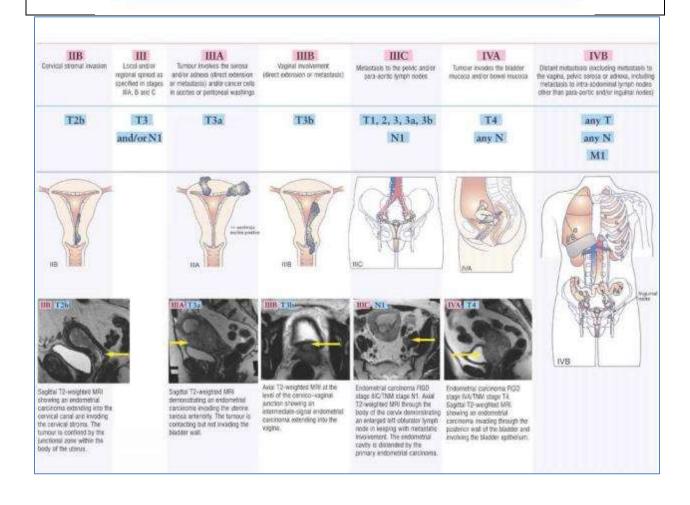
IB: Invasion < 1/2 of myometrium

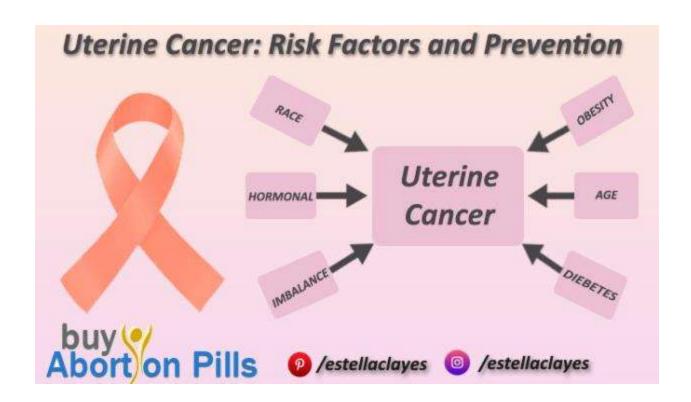
I C: Invasion > 1/2 of myometrium

Stage II: Extension to cervix

II A: Involves endocervical glands only

II B: Invasion of cervical stroma





Endometrial Carcinoma: Risk Factors

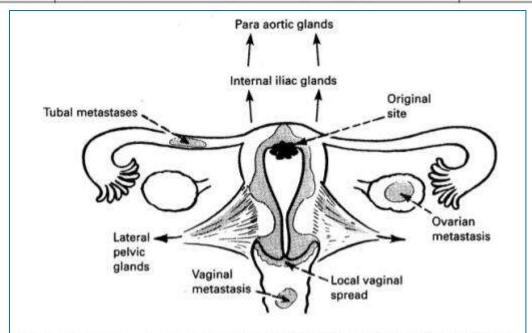
Type I: ENDOMETRIOID	Type II:	
EXCESS ESTROGEN	Not Estrogen Related*	
 Obesity* PCOS Unbalanced HRT Nulliparity Late menopause Estrogen producing ovarian tumors E.g. Granulosa cell HNPCC: Hereditary Non-Polyposis Colorectal Cancer / Lynch II Tamoxifen 	- Possibly Tamoxifen *Caveat: New evidence 2013→ Similar risk factors (based on 49,000 patients), including: parity, OCP use, smoking (decreased risk),	



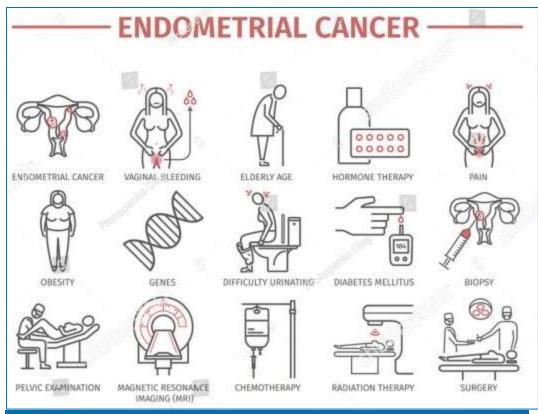
Risk Factors for Endometrial Cancer

- Diet
- Excercise
- Age
- Family History of Colorectal or Endometrial Cancer
- Obesity
- Diabetes
- Polycystic Ovarian Syndrome
- Ovarian Tumors
- > Past diagnosis of Breast Cancer or Endometrial Hyperplasia

Stage	Extent of disease	5-year survival
1	Limited to body of uterus	~85%
la	no myometrial invasion or <50% myometrial invasion	
lb	>50% myometrial invasion	
Ш	Limited to body of uterus and cervix	~75%
Ш	Extension to uterine serosa, peritoneal cavity and/or lymph nodes	~45%
Illa	Extension to uterine serosal, adnexae or peritoneal cavity (positive peritoneal washings/ascites)	
IIIb	Extension to vagina or parametrium	
IIIc1	Pelvic lymph node involvement	
IIIc2	Para-aortic lymph node involvement	
IV	Extension to adjacent organs or beyond true pelvis	~25%
IVa	Extension to adjacent organs e.g. bladder, bowel	
IVb	Distant metastases or positive inguinal lymph nodes	



Most metastases occur in adjacent structures and peritoneum. In advanced cases distant metastases do occur, most commonly in lung, but occasionally in liver, vertebrae or other bones and in supraclavicular lymph nodes.



Genetic Alteration	Type 1 Carcinoma (%)	Type 2 Carcinoma (%)
PTEN inactivation	50–80	10
K-ras mutation	15-30	0-5
β-catenin mutation	20-40	0-3
Microsatellite instability	20-40	0-5
p53 mutation	10-20	80-90
HER-2/neu	10-30	40-80
p16 inactivation	10	40
E-cadherin	10-20	60-90

Source: Cancer Control @ 2009 H. Lee Moffitt Cancer Center and Research Institute, Inc.