

Hormone Replacement Therapy (HRT)

Route of administration

Progesterone	Oral	Incomplete effects Side effects due to metabolites
	Non-oral	Effective “physiological”
Progestin	Oral	Effective (genomic effects) Variable side effects (non genomic effects)
	Non oral	Induces same side effects <ul style="list-style-type: none">- Molecule dependant- Route independent

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Progestins

- Progesterone: absorbed orally when micronized but poor bioavailability because of liver metabolism
- Synthetic progestins: man made molecules
 - Resist enzymatic degradation and remain active orally
 - Mimic effects on progesterone receptors (prevent hyperplasia)
 - Non genomic action unknown (side effects on central nervous system)
- Natural progesterone effective vaginally

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Progestagens

- E2 alone induces endometrial hyperplasia and/or cancer
- Progesterone opposes the growth promoting effects of E2
 - Lowers E2 receptors
 - increases 17 β hydroxylase
- Hyperplasia and/or cancer never seen in ovulatory women
- Progestins completely revert risk

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Estrogen treatment : Bone sparing doses

Estrogen preparations	Route of administration	Bone sparing or commonly used dose
Conjugated Equine Estrogen (Premarin®)	Oral	0.625 mg/24h
Micronized E2 (Estrace® and others)	Oral	1 – 2 mg/24h
E2 valerate (Progynova®)	Oral	0.01 mg/24h
Ethinyl-E2 (Estinyle® and others) (also constituent of most oral contraceptives)	Oral	0.05 mg/24h 3.5 or 7 day « patches »
Transdermal E2 « patches » (Estraderm® and other newer products)	Transdermal	1.5g of gel containing approx. 0.05 of E2

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Estrogen therapy

- Daily production of E2 fluctuates through the cycle
 - Early foll. phase 0.05 mg/24h
 - Late foll. phase 0.5 mg/24h
 - Luteal phase 0.3 mg/24h
- Should match early follicular phase levels and/or protect against osteoporosis

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Introduction

- Menopause is a natural process
- Life expectancy after menopause has increased (“artificial” developments)
- Increase in life expectancy has lead to:
 - New expectations
 - New needs

<u>Objective</u>	⇒	Treat symptoms
	⇒	Prevent consequences

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High Risk Individuals

- First, “*do not harm*”
- When in doubt, opt for:
 - Physiological option