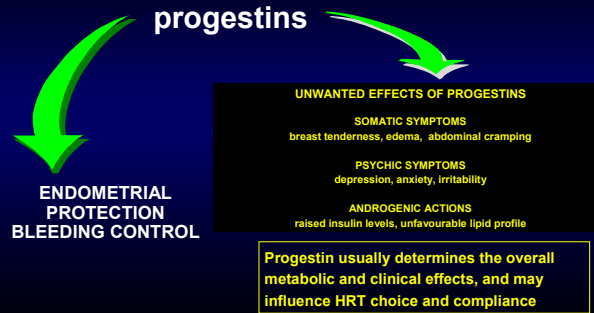


The role of different progestins beyond endometrial protection

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PROGESTOGENS AND HRT



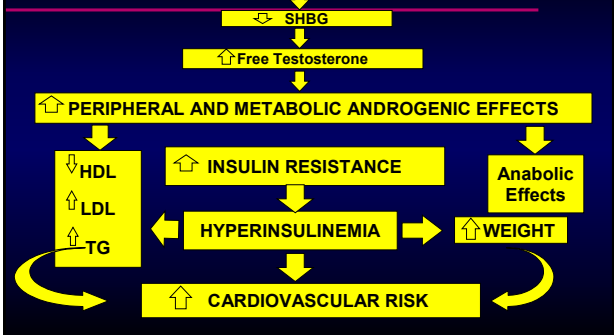
Pharmacological Profiles of Progestins

	Progestogenic activity	Androgenic activity	Antiandrogenic activity	Antialdosterone activity	Glucocorticoid activity
Progesterone	+	-	(+)	+	-
Drospirenone	+	-	+	+	-
CPA	+	-	+	-	(+)
Dienogest	+	-	+	-	-
Levonorgestrel	+	(+)	-	-	-
MPA	+	(+)	-	-	(+)
Norethisterone	+	(+)	-	-	-
Tibolone	+	+	-	-	-
Trimegestone	+	-	(+)	(+)	-
Norgestimate	+	(+)	-	-	-

+ relevant activity, (+) activity not clinically relevant, - no activity

Modified from Susan J Keam & Antonia J Wagstaff, Treat Endocrinol 2003

POSTMENOPAUSAL HYPOESTROGENISM

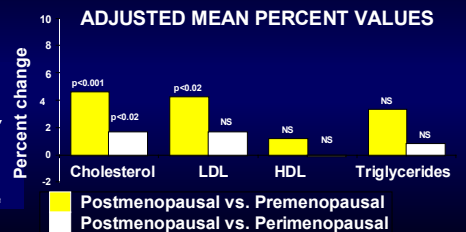


...effects on lipid profile

The effect of menopause on blood lipid and lipoprotein levels The Icarus Study Group.

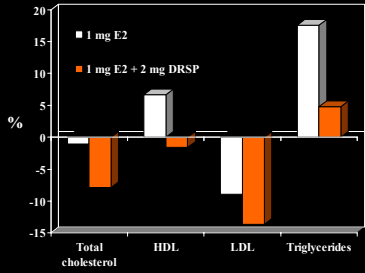


Values were adjusted for age, education, centre, BMI, smoking, hypertension, diabetes and contraceptive use



E-DRSP: Effect on lipid profile

mean changes from baseline after year of treatment



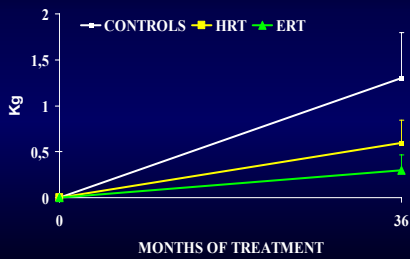
The lack of androgenic properties of DRSP results in an overall favorable impact on the lipid pattern.

E-DRSP :

- reduces total cholesterol
- reduces LDL-cholesterol levels
- increases HDL/LDL ratio
- reduces TG levels vs E2 alone

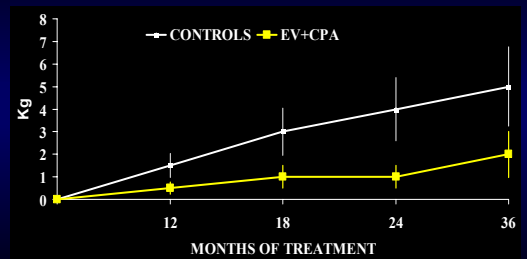
...effects on body weight

BODY WEIGHT MEAN CHANGES



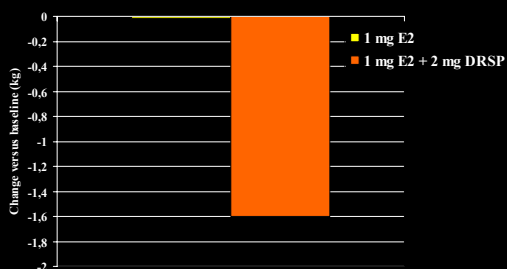
PEPI Trial, 1995

BODY WEIGHT MEAN CHANGES



Gambacciani et al., 2001

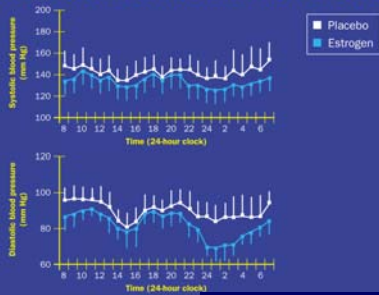
E-DRSP: Changes in body weight after one year



Overall, the data suggest a strong impact on the body weight for the preparation containing DRSP, which can be explained by the anti-aldosterone activity of DRSP

...effects on blood pressure

ERT* Restores Normal Circadian Blood Pressure



n = 30; *transdermal 17 β -estradiol (100 mg/day)

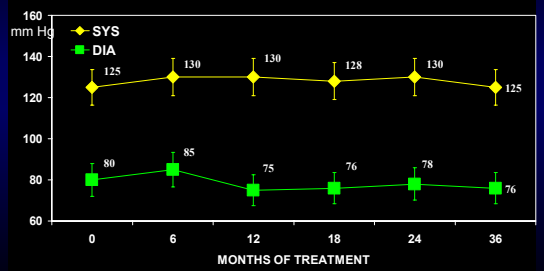
Mercurio et al. *Am J Hypertens*. 1998;11:909.

PMW with mild-to-moderate hypertension

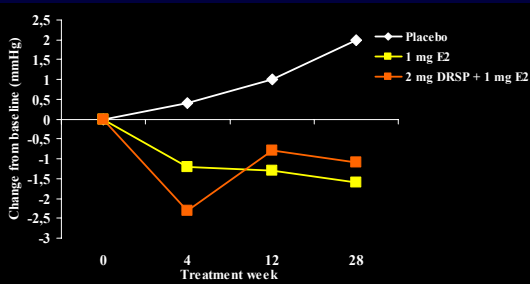
1. E restored the nighttime reduction in BP

2. E significantly decreased 24-hour BP

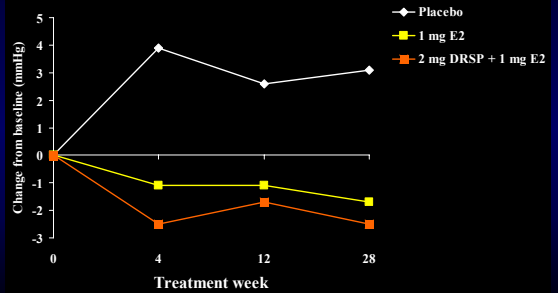
EV + CPA AND BLOOD PRESSURE



E-DRSP: Effects on systolic blood pressure

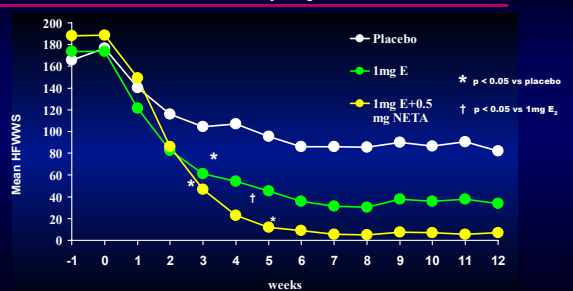


E-DRSP: Effects on diastolic blood pressure

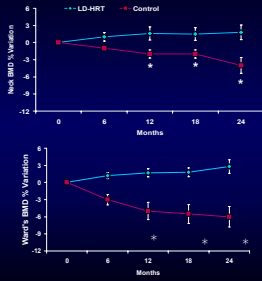


The Effect of Progestins in Lower HRT Doses

The addition of low dose of norethisterone acetate enhanced the reduction of HF associated with 1mg 17b-estradiol



Effects of Low-Dose HRT on Femur BMD



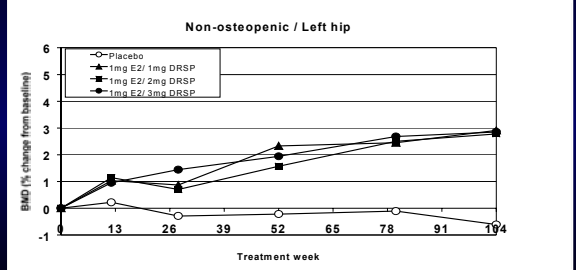
Baseline characteristics of Control (n=15) and LD-HRT-Treated (n=63) PMW

	Control	LD-HRT
Age (yr)	54.0 ± 0.7	54.4 ± 0.4
YSM (yr)	4.0 ± 0.7	3.5 ± 0.3

*p<0.05 vs basal and corresponding LD-HRT group values

Journal of Menopausal Medicine

Low dose E-DRSP Prevention of Postmenopausal Osteoporosis



Progestins and low-dose HRT

- ◆ Protect the endometrium
- ◆ Lead to high amenorrhea rates
- ◆ Reinforce the estrogen effects on HF
- ◆ Add antiresorptive and bone sparing effects

Estrogen + (new) Progestin Replacement Therapy

New choices for HRT personalization

INDIVIDUALIZED TREATMENT

- patient examination and characteristics
 - selective testing : familiar and personal history
 - personal needs and preferences
- alleviates climacteric symptoms
 - poses no risk of endometrial hyperplasia & optimal bleeding control
 - shows a favorable lipid profile & beneficial effects on BP
 - prevents postmenopausal osteoporosis
 - improves quality of life
 - may delay and/or prevent cognitive decline and dementia