# Menopause and hormone therapy in the 21st century: why promote transdermal estradiol and progesterone?

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In their editorial,[1] Gersh and Lavie describe the many ways that estradiol impacts cardiovascular health. In addition, the authors rightly question the findings of the Women's Health Initiative among meno-pausal women using hormone therapy. Importantly, they emphasise the need for using the most physiological human- identical transdermal estradiol combined with natural progesterone. However, no information is given on both the biolog-ical rationale and the expected benefits of transdermal oestrogens compared with oral oestrogens. Oral but not trans-dermal oestrogens result in a hepatic first- pass effect that may induce reversible prothrombotic changes in haemostatic variables,[2] including resistance to acti-vated protein C (figure 1). Thrombotic process plays a critical role in the develop-ment of both venous and arterial diseases. European studies have clearly shown the advantage of transdermal oestrogens with respect to the risk of venous thrombo-embolism[3] and probably also stroke. The type of progestogens has also emerged as an important determinant of thrombosis. Progesterone has no effect on blood coag-ulation,[2] and it is the safest progestogen with respect to thrombosis.[4] Since throm-bosis is one main serious adverse effect of hormone therapy, women should be encouraged to use transdermal oestrogens combined with progesterone.

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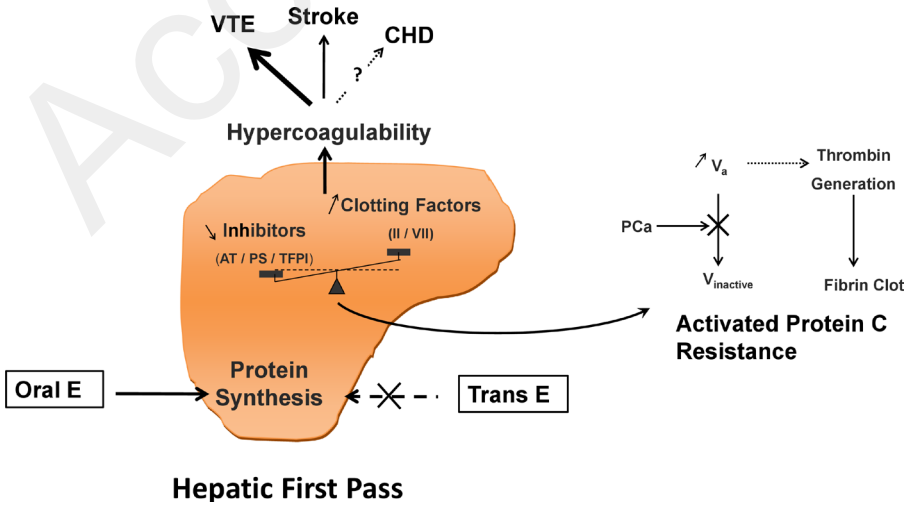


**Figure 1** Caption.