

More on Androgen Decline

- DHEA is approximately 25% of youthful levels... or less (!) by perimenopause
- Androgen depletion occurs later or sooner
- Androgens may be adequate in peri-menopause
 - o as ovarian estrogen disappears, SHBG can diminish leading to increase of free Testosterone
 - o substantial declines often occur “later” or “sooner”
 - o adrenal androgens will deplete with significant stress
- Can wait until 1st hormone level test before starting Rx
- No delay to androgen Rx if clinical decline is obvious

Androgens

When the ovary ceases functioning

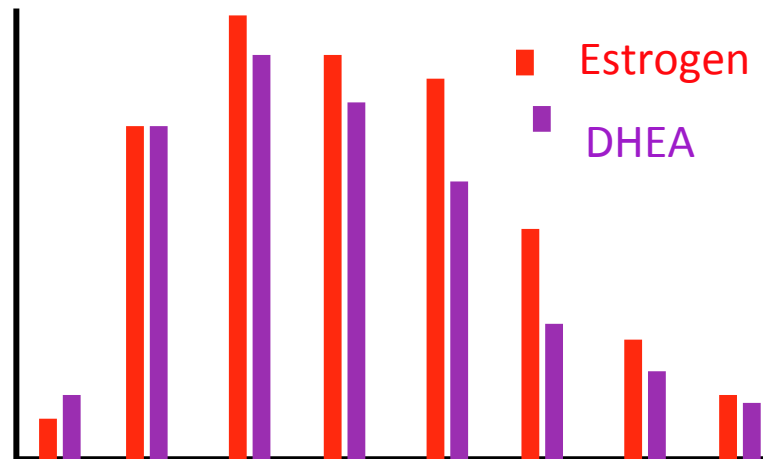
Testosterone can convert to Estradiol

In the adipose tissue

The more adipose tissue, the merrier

Androgen Decline

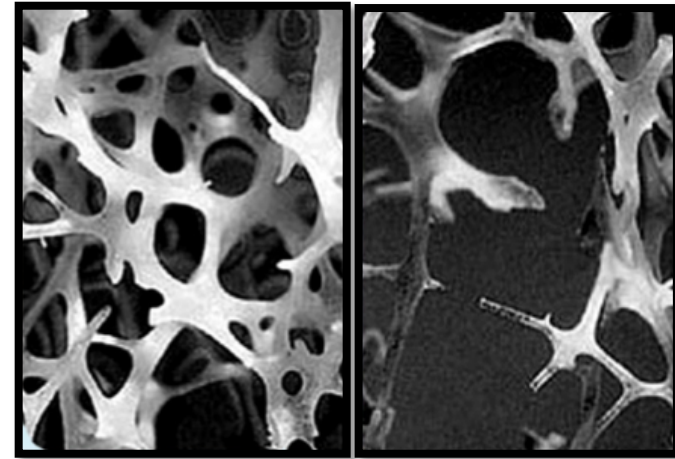
	FA	MS	D.K.	AR	RP	Ref Range
age	30	55	57	62	88	
DHEA	1216	141	390	33	8.3	20 - 1067
testosterone	16	6.1	4	1.8	1.1	5 - 18



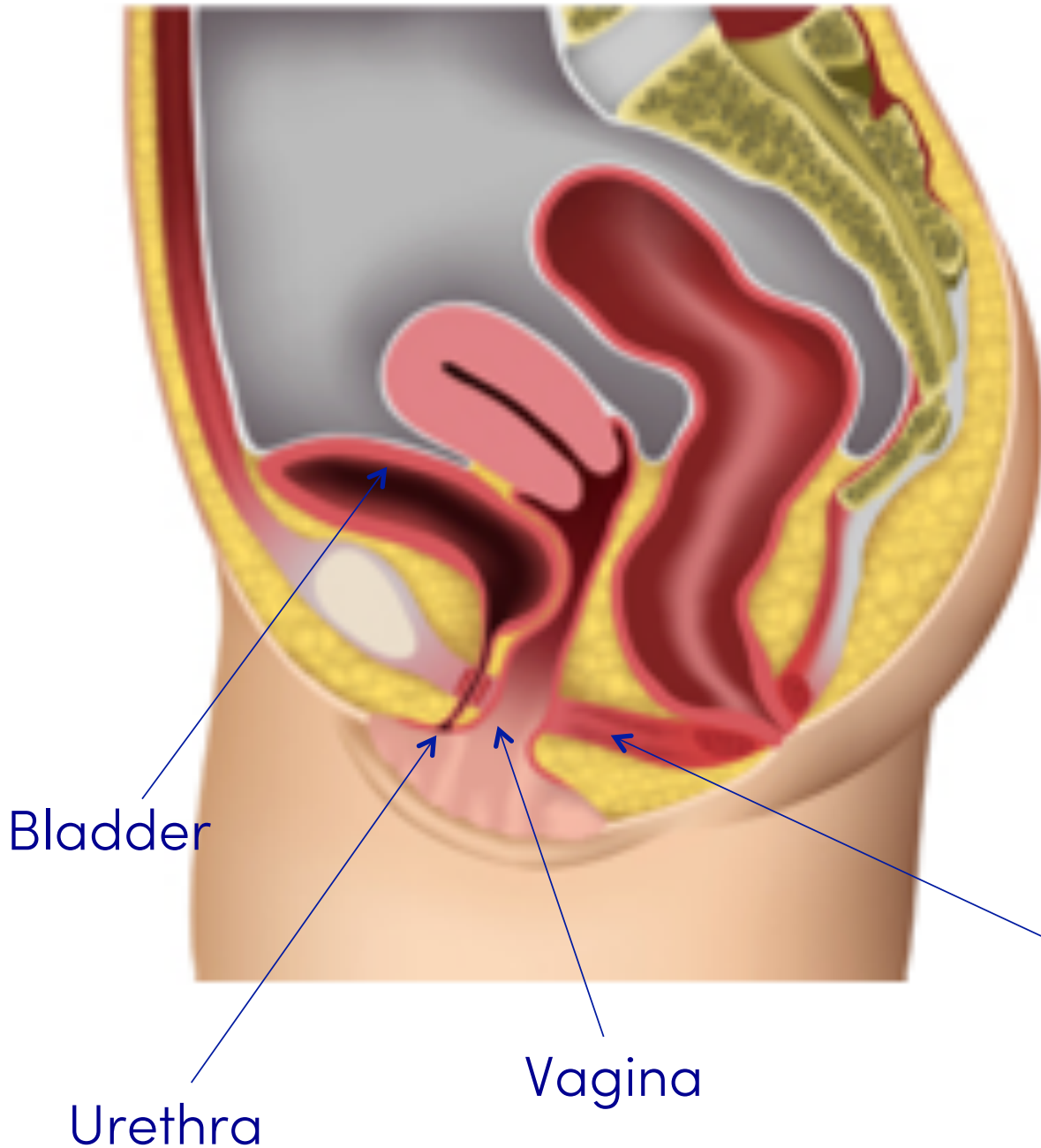
- Clinical consequences of androgen deficiency are highly significant
- Weakness, Sarcopenia, diminished drive, Libido



sarcopenia



Fall onto
osteoporosis



Sarcopenia of Levator ani can lead to bladder & prolapse issues

then nocturia, urgency, incontinence, sleep disturbance
...& adult diapers (Depends)

Bladder

Urethra

Vagina

Levator ani

Absorption

		D.B.	D.B.	
	age	57	58	
	date	3/9/12	2/28/13	
Rx:				
	Testosterone	2.6 mg circ vag	2.6 mg ilm+invag	ilm/invag = Internal Labia Minora &/or Intravaginal
	DHEA	12 mg circ vag	15mg po	
Test results				ref.range
	Testosterone	3.7	17	4-18
	DHEA	24	664	20-1139
	Androsterone	483	1703	373-3414
	Etiocholanolone	396	2432	450-2910