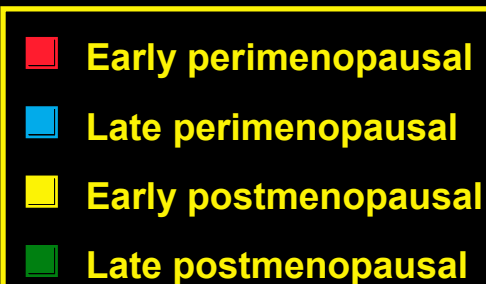
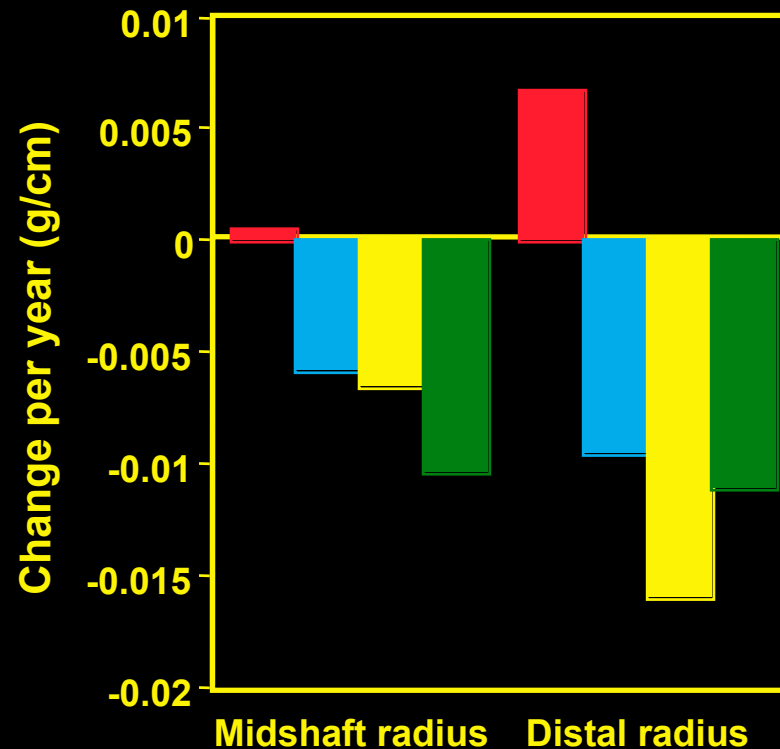


The Menopause Transition: Longitudinal Studies

(Slemenda et al., JCI 80:1261-9, 1987)

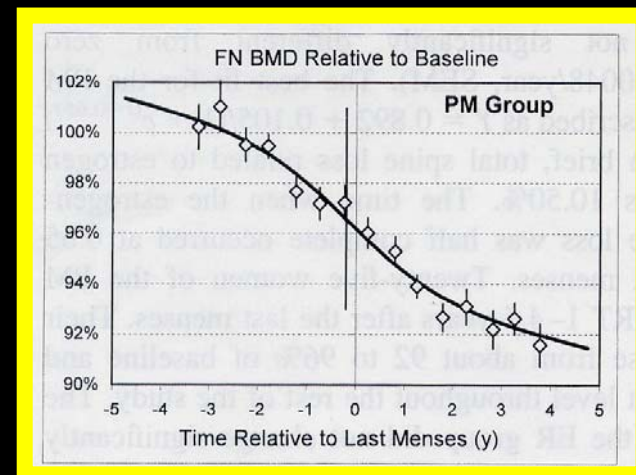
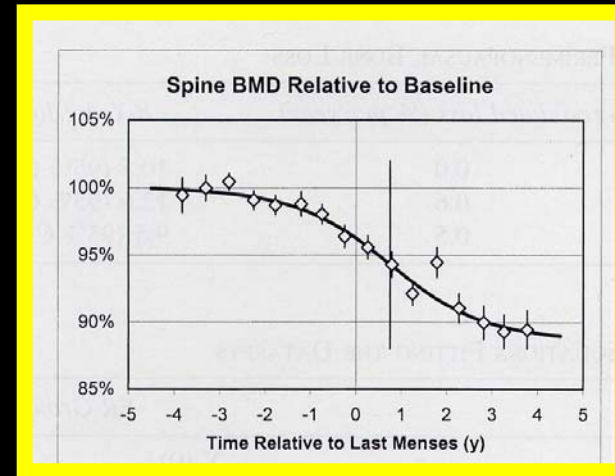
- 84 women age 42-58
- **Classifications:**
 - Early perimenopausal: irregular periods in last 12 months & FSH < 40.
 - Late perimenopausal: irregular periods in last 12 months & FSH > 40
 - Early postmenopausal: no periods for 12-24 months.
 - Late Postmenopausal: no periods for > 24 months.
- **Radius BMD by SPA every 4 mo. for 3 yrs.**



The Menopause Transition: Longitudinal Studies

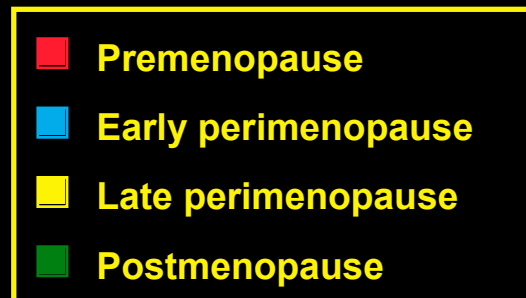
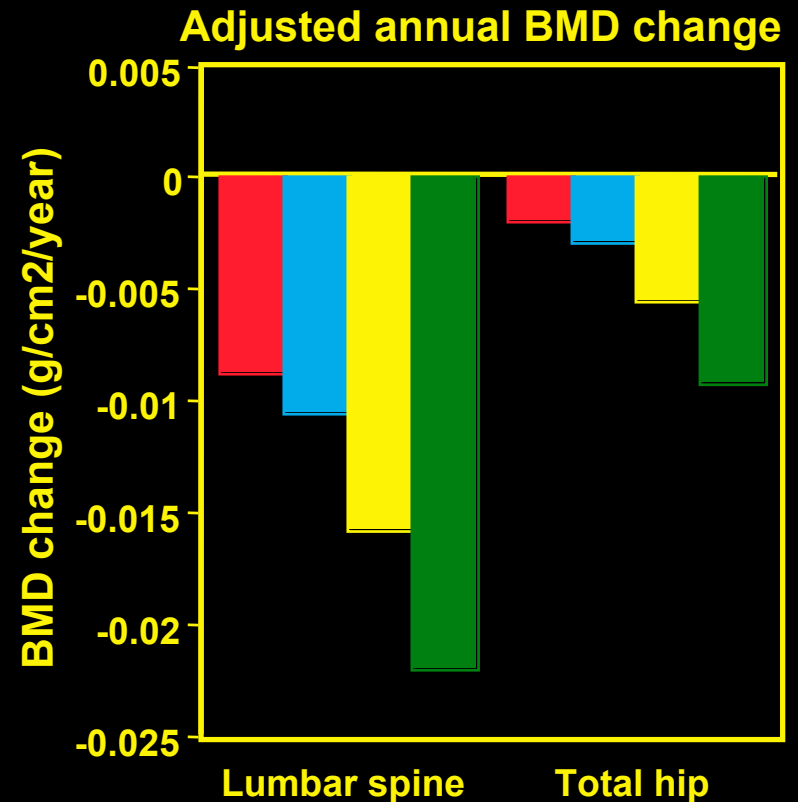
(Recker et al., JBMR 15:1965-73, 2000)

- **75 women age 46 or older**
- **Classifications:**
 - **Premenopausal: 6+ periods in last year, 12+ periods in last 2 years, FSH < 25 U/L, and estradiol > 50 pg/mL.**
- **Spine, hip, and total body BMD measured by DPA and then by DXA over 9-10 years.**



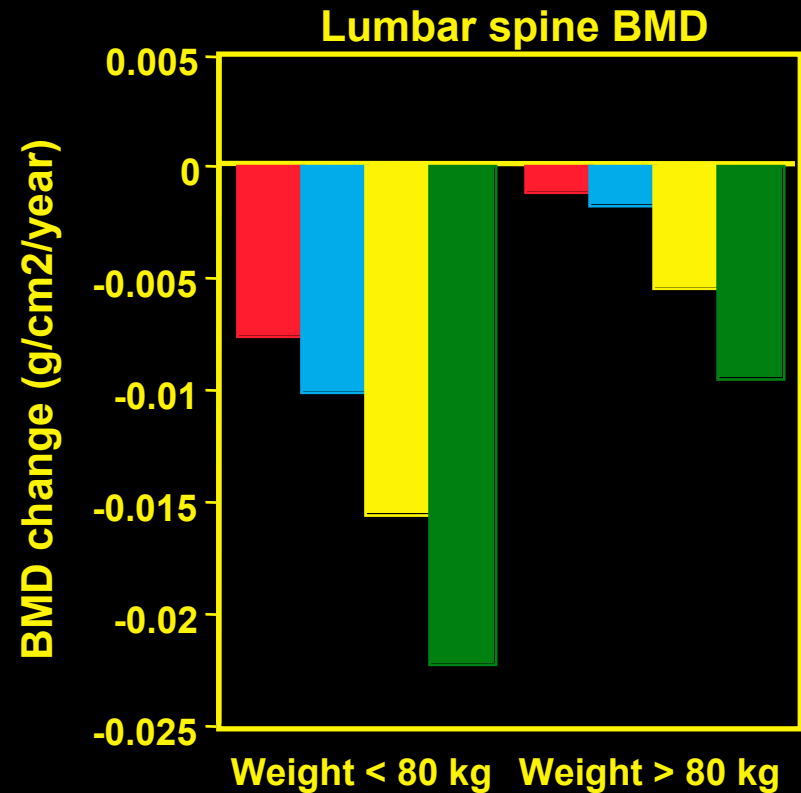
SWAN longitudinal analyses: Results

- 2193 women, mean age 46 at entry, with 8098 observations
- Followed for 4 years
- Adjusted for:
 - age
 - weight and weight change
 - ethnicity
 - calcium intake
 - smoking
 - physical activity
 - alcohol intake
 - glucocorticoid use
 - SWAN site



SWAN longitudinal analyses: Results

- 1548 women with current weight \leq 80 kg (5307 observations)
- 800 women with current weight $>$ 80 kg (2461 observations)
- Followed for 4 years
- Adjusted for factors noted previously



- Premenopause
- Early perimenopause
- Late perimenopause
- Postmenopause