

Biology and Politics: Is Rhetoric Hijacking Science?

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Politically Correct:

- **Men and women are identical except for their reproductive biology.** Thus
 - They can be educated and trained in the same way for the same tasks.
 - The consequences of the roles we assign them will be identical for both.
- **Women should be included wherever appropriate in all clinical investigation.**



Biological Reality

- Men and women are **significantly** different in every system of the body.
 - **Optimal performance in identical roles** will probably require sex-specific education/training.
 - The **impact of assigned roles/tasks** on health will be different in important respects for men and women.
- Women of childbearing age are **uniquely vulnerable** to the possible impact of trials of a new drug or intervention; their safety and that of any offspring conceived during such a trial cannot be guaranteed.
- The **time sequence and impact** of some diseases are so disparate as a function of biological sex that meaningful simultaneously collected information in both sexes is virtually impossible to obtain.



Economic Realities

- **Lawyers** are knowledgeable about gender-specific medicine.
- The **cost of disease** to individuals, employers and the economy is gender-specific: asthma more severe in women, 3 out of 4 people who die of cardiovascular disease before 65 are men.
- **New drug development** will be impacted by requirement for testing in both genders.



Gender Specific Medicine: What Is It?



GENDER SPECIFIC MEDICINE:

The science of how normal human function and the experience *of the same diseases* differ between men and women.

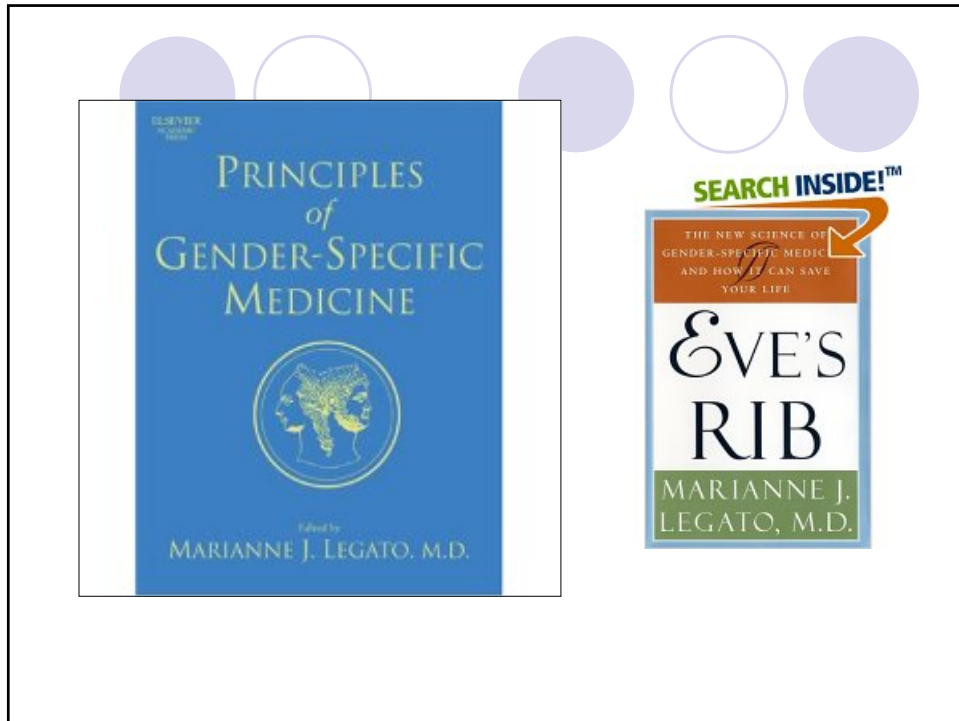
Gender-specific medicine is not "women's health". It holds that

- The new data prompt a reconsideration of our essentially male models of health and the pathophysiology of disease.
- The sex of the patient is a fundamental consideration in planning the prevention, detection and treatment of illness.
- The unique biology of men and women will require sex-specific preparation for and expectations of the outcome of the roles we expect them to fill.



What Do We Know About The Differences Between Men and Women?

And How Might these Differences Affect
Health Care Policy?



Some Differences in the Sexes That Impact Health Care and Health Care Policy.

- Brain
- Heart
- GI Tract
- Skeletal system
- Drug metabolism
- Homosexuality: choice or biology? Impact on education at all ages. Post traumatic stress disorder and disability/workman's compensation.
- Normal heart is qualitatively and quantitatively different in men & women. CVD is the chief killer of both sexes; different timing, manifestations and different longevity in men and women.
- Gender-specific aspects of IBS (workman's compensation) and GI cancers.
- Impact of osteoporosis entirely different in two sexes. Debilitating deformity much more common in women/life threatening hip fracture seen in men as well as women.
- Gender-specific information about drug metabolism and efficacy essential for regulators as well as health care professionals.



Health Policy Should Reflect An Awareness of the Differences Between the Sexes:

Our knowledge of gender-specific biology should

- Tailor the way we select, train and monitor men and women for societal roles.
- Shape how we recruit subjects for medical research and dictate who they should be.
- Acknowledge that the prevention, detection, manifestations and treatment of disease differs in men and women.