

S. O. Skouby

Controversial History of Sex-Hormones

From Contraception to Menopause Management...

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Controversial History of Sex Hormones



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Hormonal contraception and replacement therapy

Special reference to:

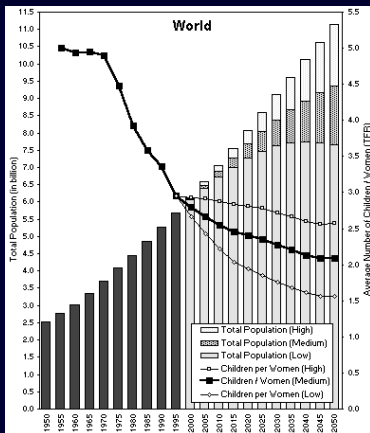
- Demography, socioeconomics and personal well-being
- Achievements in research and development
- Myths and recognition

The World Health Report 1998

Life in the 21st century - A vision for all

Looking forward to health

The 21st century offers a bright vision of better health for all. It holds the prospect not merely of longer life, but superior quality of life, with less disability and disease. In the beginning of the new millennium, the global population has never had a healthier outlook

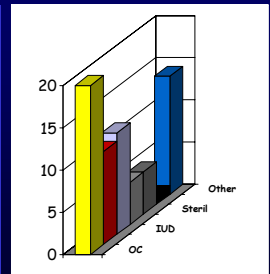


Total Population (in billion) and Average Number of Children (Total Fertility Rate, TFR) High, Medium and Low Variants.

Source: UN Population Division (1997): World Population Prospects, 1950-2050

Contraceptive prevalence (%)

- Any method 70
- OCs 22
- Condom 11
- IUD 12
- Sterilisation ♂ 5
- Sterilisation ♀ 5
- Vaginal barrier 1
- Other 14



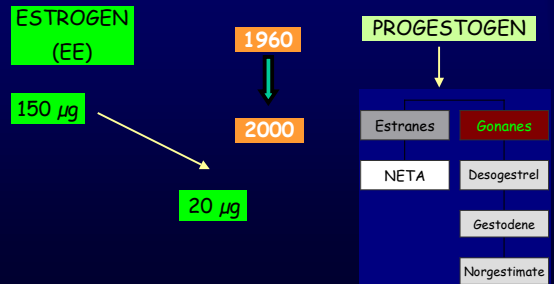
UN Survey 2001, Europe

Hormonal contraception

- Achievements in research and development

An overview of 40 Years with OCs

- Use: > 60 million women worldwide



Hormonal contraception

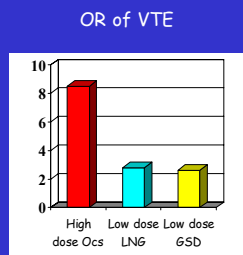
- Myths and recognition

"Pill scares"

- 1969: VTE
- 1977: Heart attacks, stroke
- 1983: Breast cancer
- 1995: VTE

Risk of VTE

- High dose OCs: 17/10.000
- Low-dose OCs: 4/10.000



Absolute Risk of VTE - women aged 15-44 years

Risk factor	VTE risk per 10 ⁴ per year
No OC use	0,5 - 1
2nd generation OC	2 (2-4 deaths /10 ⁶)
3rd generation OC	3 - 4 (3-8 deaths /10 ⁶)
Pregnancy	5 - 10

Risk of VTE

- Pharmacoepidemiology
- Pharmacogenetics

OCs: Health benefits

- PID
- Acne
- Other PCO related disturbances
- Dysmenorrhea
- Endometriosis
- Ectopic pregnancy
- Benign breast disease

OCs: Health benefits

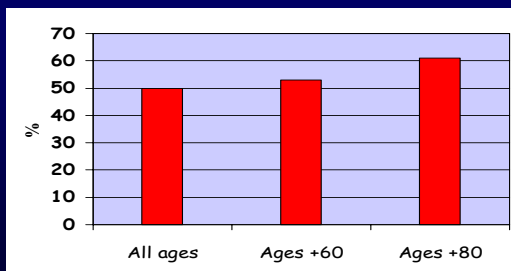
	High-dose	Low-dose
	RR	RR
Endometrial cancer	0,3 (0,1-0,9)	0,2 (0,1-0,8)
Ovarian Cancer	0,5 (0,3-0,7)	0,5 (0,3-0,6)

Am J Epidemiol 2000;152:233

Hormonal replacement therapy

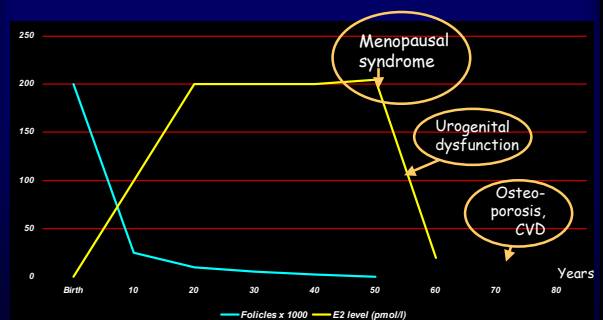
- Links to demography, socioeconomics and personal well-being

Women's share of the world population at specified ages, 2025



Gist YV and Velkoff VA, Gender and aging: Demographic dimensions, 1997

Ovarian activity and clinical symptoms:



Hormonal replacement therapy

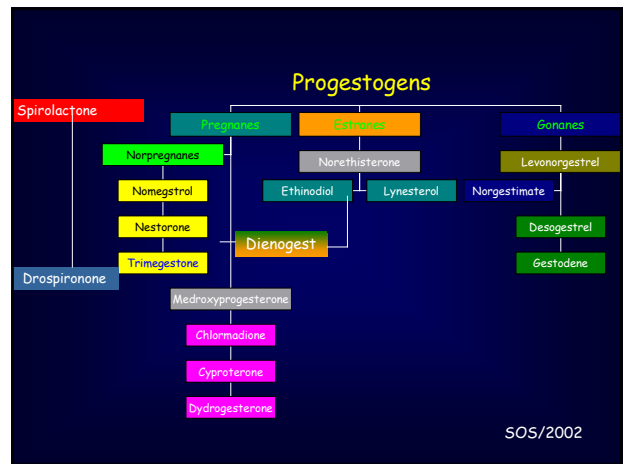
- Achievements in research and development

Ideal HRT

Clinical issue	Effect
Vasomotor symp.	+
Quality of life	+
Skeleton	+
CAD	+
CNS	+
Urogenital dysfunc.	+
Endometrial prolif	-
Breast cell prolif.	-
DVT	-

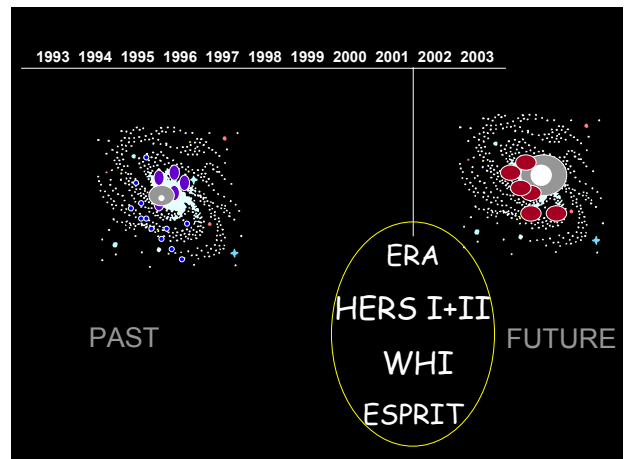
Criteria for recommendation of the Optimal Estrogen Replacement....

1. High bioavailability
2. Transparent hepatic and tissue metabolic pathway
3. Predictable biological effect from ligand or receptor selectivity
4. Clinical evidence from large epidemiological studies
5. "Natural" constitution form



Hormonal replacement therapy

- Myths and recognition

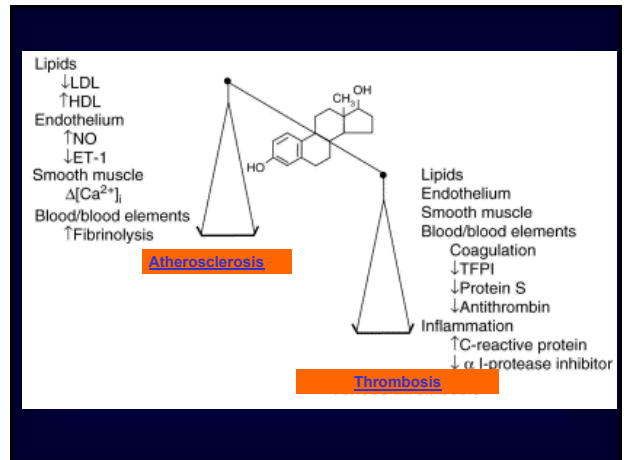


WHI rel.changes (%)

Strokes	+41
Heart attacks	+29
VTE	Doubling
Total CVD	+22
Breast cancer	+26
Colorectal cancer	-37
Hip fracture	-30
Total fracture	-24
Total Mortality	No difference

Shortcoming of the WHI

- 70% > 60 years
 - 36% hypertension
 - 34% BMI >30
 - 4% Diabetes
 - 20% Prior HRT
- Hazard/benefit ratio is a subjective stopping criteria



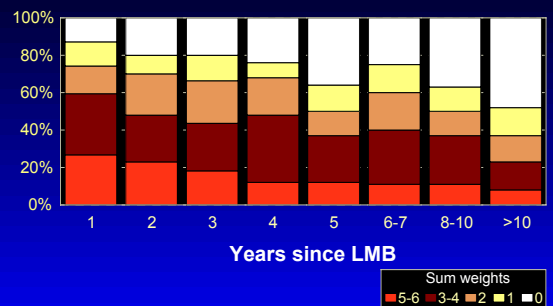
The NEW ENGLAND JOURNAL of MEDICINE

ESTABLISHED IN 1822 MAY 8, 2003 VOL. 348 NO. 19

Effects of Estrogen plus Progestin on Health-Related Quality of Life

Jennifer Hays, Ph.D., Judith K. Ockene, Ph.D., Robert L. Brunner, Ph.D., Jane M. Kotchen, M.D., M.P.H., JoAnn E. Manson, M.D., Dr.P.H., Ruth E. Patterson, Ph.D., R.D., Aaron K. Aragaki, M.S., Sally A. Shumaker, Ph.D., Robert G. Brzyski, M.D., Ph.D., Andrea Z. LaCroix, M.P.H., Ph.D., Iris A. Granek, M.D., and Barbara G. Valanis, M.D., for the Women's Health Initiative Investigators*

SEVERITY OF VASOMOTORIC COMPLAINTS ACCORDING TO CLIMACTERIC STATUS



Oldenhave A, Lancet 1994

Hormonal contraception and replacement therapy

Conclusion (1)

- The pill we know to-day has evolved from an overdosed treatment of gynecological problems into a fine tuned life-style product which offers safe, convenient, reversible fertility regulation and in addition important non-contraceptive benefits

Hormonal contraception and replacement therapy

Conclusion (2)

- Hormonal replacement therapy has a clear place in the treatment of climacteric symptoms although its long-term use is under continued evaluation.
- To some extent epidemiological information has added complexity and uncertainty to prescription of both OCs and HRT. Consequently there is a need for a fresh and innovative approach to counseling of the individual