
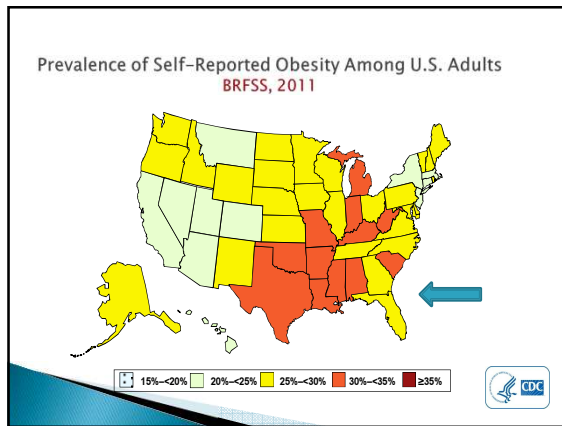


Reproduction and Obesity: Best practices for family planning

CARRIE CWIAK, MD, MPH
FAMILY PLANNING DIVISION


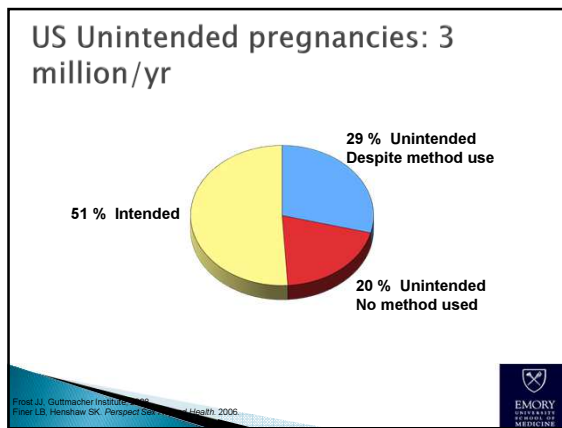


Department of Gynecology and Obstetrics



Disclosures


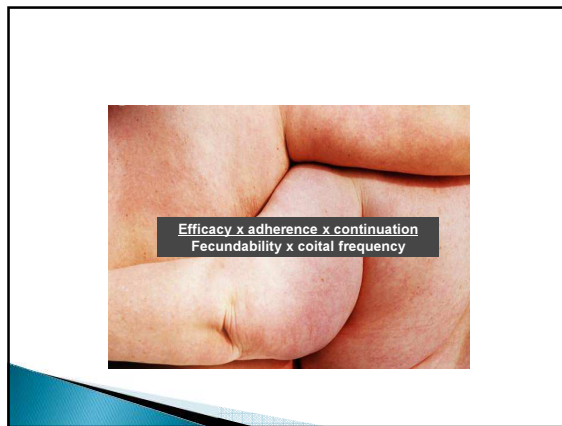
- ▶ Faculty trainer
 - Merck (Nexplanon)
- ▶ Research funding
 - Medicines 360 (Lng IUD)
- ▶ Springer
 - Contraceptive text

OBJECTIVES

Identify:

- ▶ Adverse reproductive effects related to obesity
- ▶ Effectiveness and safety of contraception
- ▶ Strategies for counseling

RISK OF PREGNANCY

- Weight extremes affect fertility
 - Majority of obese women still ovulate
- No difference in sexual behavior
 - Obese women less likely to use contraception
- "Thinner" adolescent girls have more opportunities to date
 - Obese teens more likely to have body image dissatisfaction, lower self esteem

EMORY UNIVERSITY SCHOOL OF MEDICINE

Comparing typical effectiveness of contraceptive methods

More effective
Less than 1 pregnancy per 100 women in one year

How to make your method most effective

After procedure, little or nothing to do or remember

Vasectomy: Use another method for first 3 months

Injections: Get repeat injections on time

LAM (for 6 months): Breastfeed often, day and night

Pills: Take a pill each day

Patch, ring: Keep in place, change on time

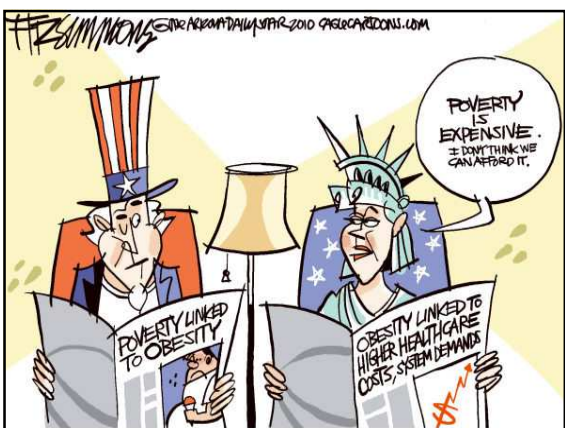
Condoms, diaphragm, sponge: Use correctly every time you have sex

Fertility-awareness based methods: Abstain or use condoms on fertile days. Newest methods (Standard Days Method and TwoDay Method) may be the easiest to use

Withdrawal, spermicide: Use correctly every time you have sex

Less effective
About 30 pregnancies per 100 women in one year

Source WHO 2007, adapted with permission

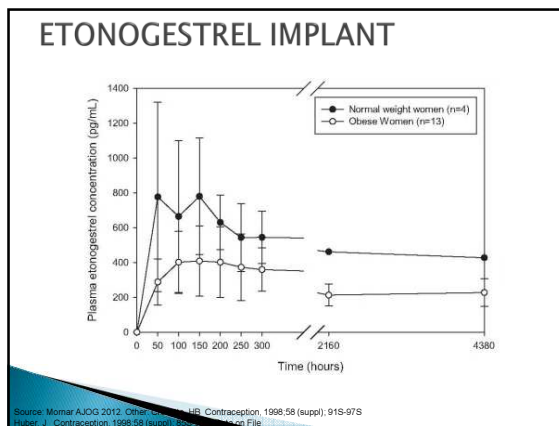


Locally-acting methods

EMORY UNIVERSITY SCHOOL OF MEDICINE



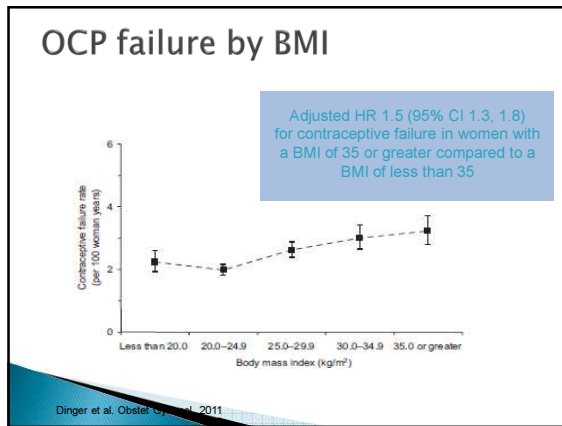
Contraceptive effectiveness

EMORY UNIVERSITY SCHOOL OF MEDICINE




Depot Medroxyprogesterone acetate

- ▶ Jain et al 2004:
 - Randomized: 150 mg IM vs. 104 mg SC
 - 26/63 patients = obese or overweight
 - No failures
- ▶ Segall-Guiterrez et al 2010:
 - 10 morbidly obese women
 - 104 mg SC DMPA
 - No ovulations after the first week

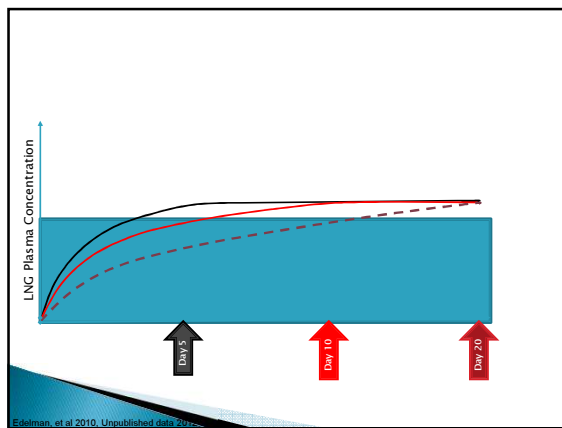




Transdermal patch

- ▶ Audet et al 2001
 - Randomized patch vs pills
 - 811 Patch users
 - 2 failures in women ≥ 80 kg
- ▶ Zieman et al 2001
 - Pooled existing Patch failures
 - 5 failures occurred in women ≥ 90kg
 - 10 failures occurred in women < 90kg




<http://pub.h2.no/hettavisen/eng/ish/article256805.coe>



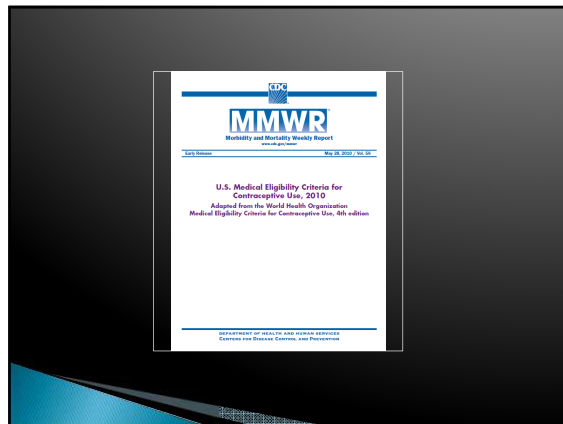
Transvaginal ring

- ▶ Dieben et al 2002
 - Prospective cohort study
 - BMI > 29 kg/m² = 20/2322
 - Total 21 pregnancies occurred overall
- ▶ Secondary analysis of phase 3 studies
 - Only 74 women with weight > 189 lbs
- ▶ Dragoman 2012 abstract
 - No ovulation for 42 days in normal or obese women



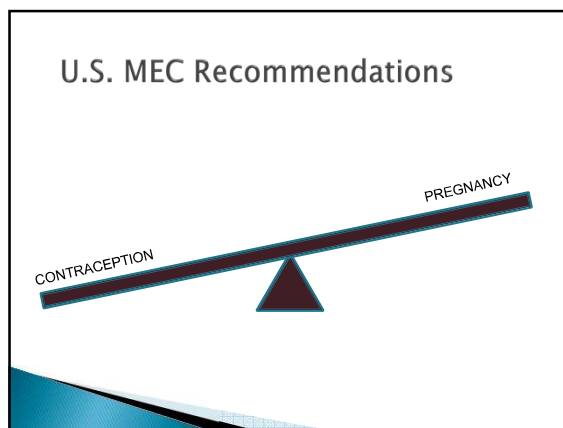

Source: Dieban; Roumel, 2001 Hum Reprod; Odsson 2005 Contra; Ahrendt 2006 Contra; Data on file, Organon USA; Dragoman 2012








TAKE HOME MESSAGE

▶ *The use of contraception prevents more pregnancies than the use of no contraception*




Contraceptive safety



- U.S. MEC CATEGORIES FOR CONTRACEPTIVE USE
- 1 = No restriction for use
 - 2 = Advantages usually outweigh theoretical or proven risks of use
 - 3 = Theoretical or proven risks usually outweigh advantages of use
 - 4 = Unacceptable health risk if used
- 
- 

Obesity


- Sixty-six percent of US adults are overweight or obese
- Obesity doubles the risk of venous thromboembolism
 - Increases risk of hypertension, diabetes, hypercholesterolemia
- Obese women are at risk for pregnancy-related complications, birth defects




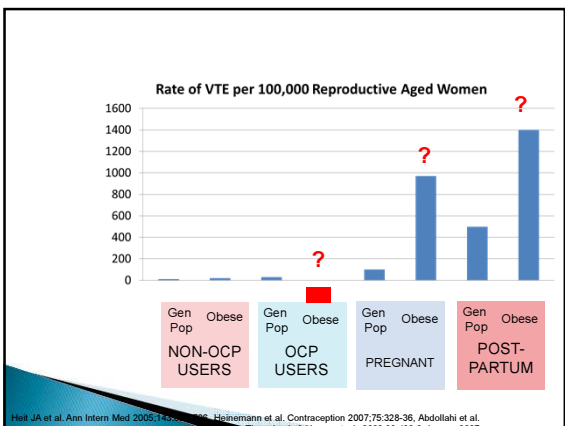
US Medical Eligibility Criteria (MEC) 2010

Conditions associated with increased risk as a result of unintended pregnancy include:

Bariatric surgery within the past 2 years




U.S. Medical Eligibility Criteria for Contraceptive Use, 2010
Adapted from the World Health Organization Medical Eligibility Criteria for Contraceptive Use, 4th edition

Contraception after bariatric surgery: Why?

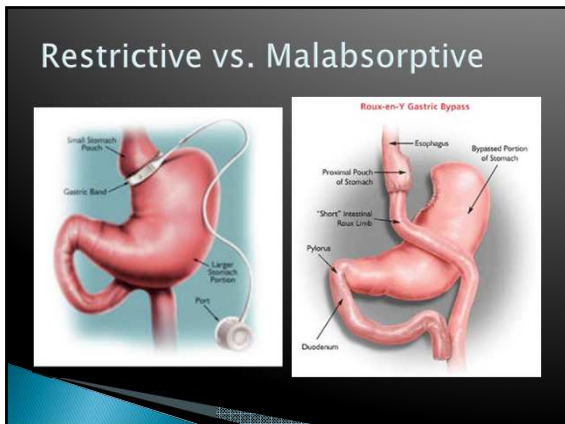
- With decreasing weight and accompanying metabolic changes, menstrual cycles may normalize and fertility improve
- Guidelines are to delay pregnancy for 2 years after surgery
 - Postoperative complications, metabolic changes
- *Many surgical patients are women of reproductive age*



MEC FOR OBESITY (BMI \geq 30)

Type	Category
Combined pill, patch, ring	2
Progestin only pills	1
DMPA	1
Copper IUD	1
LNG IUD	1
Progestin Implant	1

MMWR, 2010





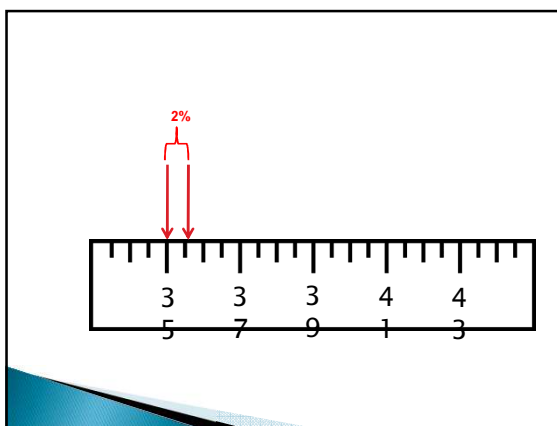
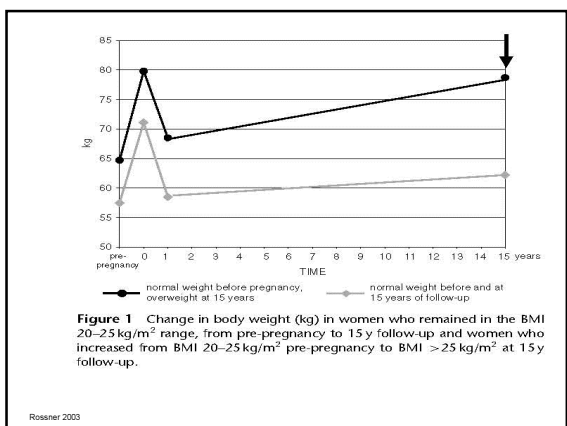
Improving on BMI

- ▶ Waist-to-Hip Ratio
 - >0.81
- ▶ Waist Circumference
 - >35 inches

PEAR-SHAPED

APPLE-SHAPED

Koning, et al. Eur Heart J

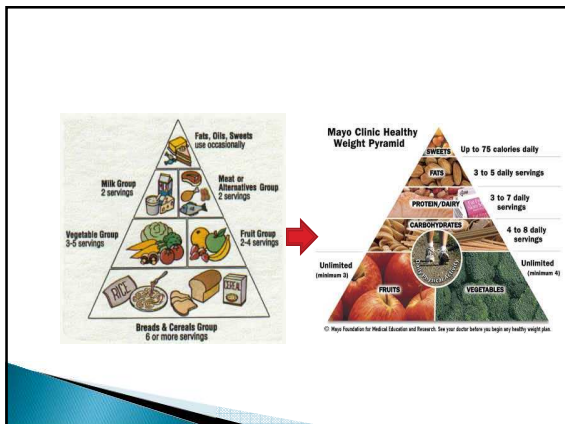


BMI Body Comparison

©2005 HowStuffWorks

HEIGHT	06	00
FEET	INCHES	
WEIGHT	250	
POUNDS		
BMI	33	9





References

- Centers for Disease Control and Prevention, U.S. Medical Eligibility Criteria for Contraceptive Use, MMWR, 2010.
- Paulen ME, Zapata LB, Cansino C, Curtis KM, Jamieson DJ, Contraceptive use among women with a history of bariatric surgery: a systematic review, Contraception 2010.
- Lopez LM, Grimes DA, Chen-Mok M, Westhoff C, Edelman A, Helmerhorst FM, Hormonal contraceptives for contraception in overweight or obese women. Cochrane Library, 2010.
- Gallo MF, Lopez LM, Grimes DA, Schulz KF, Helmerhorst FM, Combination contraceptives: effects on weight. Cochrane Library, 2011.



References

- Kaneshiro B, Contraceptive use and sexual behavior in obese women, Semin Reprod Med, 2012
- Edelman A, Contraceptive considerations in obese women, Contraception, 2009.
- Mornar S, Chan LN, Mistretta S, Neustadt A, Martins S, Gilliam M, Pharmacokinetics of the etonogestrel contraceptive implant in obese women. Am J Obstet Gynecol, 2012
- Kaunitz AM, Injectable long-acting contraceptives, Clin Obstet Gynecol, 2001
- Zieman M, Guillebaud J, Weisberg E, Shangold GA, Fisher AC, Creasy GW, Contraceptive efficacy and cycle control with the Ortho Evra/Evra transdermal system: the analysis of pooled data. Fertl Steril, 2001

