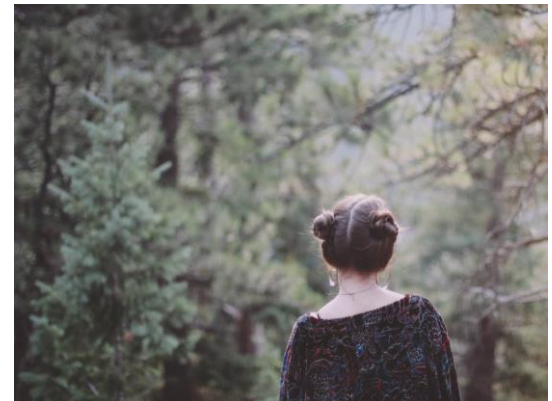


MATERNITY CARE
AND GYNECOLOGICAL
NURSING, 4ECTS

LEARNING ACTIVITY
PACKAGE (LAP)
LECTURE MATERIAL



PRECONCEPTION HEALTH OF YOUTH, bridging the gap in and through education



**ViVa - Viisaat
valinnat**

viva

viisaat valinnat

SEKSUAALI- JA LISÄÄNTYMISTERVEYS
TIETOPANKKI

viva.tamk.fi

Material for
young adults



Reproductive health test
repro.tamk.fi



preco.tamk.fi

**NUTS'N
EGGS**

SEKSUAALI- JA LISÄÄNTYMISTERVEYS
TIETOPANKKI NUORILLE

Material for youth
nutsneggs.tamk.fi



Co-funded by the
Erasmus+ Programme
of the European Union



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University of Jyväskylä
Faculty of Health Sciences



University of
Applied Sciences
VU Leuven Association

ERASMUS + PROJECT



Preconception health of youth, bridging the gap in and through education

PreconNet brings lifelong fertility education to health professional educators by translating evidence on preconception in practical tools.

PRECONCEPTION CARE

Studies show a positive effect of preconception care, reproductive life planning and promotion of fertility awareness on pregnancy outcome and awareness

PREGNANCY +++



ONLINE PLATFORM



TRANSLATION OF EVIDENCE

A comprehensible & practical platform to guide health care lecturers and students through the theory on preconception

COMPREHENSIVE APPROACH

A model which includes
Biological & Health development facts
Psychological facts
Societal, ethical & cultural facts

TRANSFERABLE MODEL



STRONG LEARNING RESULTS



APPEALING TEACHING STRATEGIES

E-handbook
Scenario training
Animations
English - Dutch - Austrian -
Slovenian - Finnish

ABOUT THE PROJECT

PreconNet is based on a recognized fertility awareness need all over Europe.

The honeycomb - model based online platform frames the content and defines the elements of preconception health and care.

The online contents are freely accessible for health care lecturers, professionals and any other citizens with an interest in fertility and preconception.

IN COOPERATION WITH



THE HONEYCOMB MODEL: A PRECONCEPTION HEALTH & CARE MODEL FOR EDUCATION

The model frames the content and defines the elements of preconceptional health and care. The elements describe the latest approaches in preconception health care, including biological and health promotion approaches, as well as psychological, social, ethical and cultural perspectives. The model is easy to translate into the curricula of the healthcare courses of the participating countries. The honeycomb model serves as a guide for the concrete elaboration of the content, didactic approach and learning outcomes with regard to preconception, preconceptional health and care. The model and its elements form a framework for the (e-learning) courses and the online platform.



Let's start to work on the
preconception of youth

Sign up and join us!
preco.tamk.fi



WHO

- Being a man or a woman has a significant impact on health, as a result of both biological and gender-related differences.
- The health of women and girls is of particular concern because, in many societies, they are disadvantaged by discrimination rooted in sociocultural factors.
- For example, women and girls face increased vulnerability to...

Sociocultural factors that prevent women and girls to benefit from quality health services and attaining the best possible level of health include:

- unequal power relationships between men and women
- social norms that decrease education and paid employment opportunities
- an exclusive focus on women's reproductive roles
- potential or actual experience of physical, sexual and emotional violence
- Poverty is an important barrier to positive health outcomes for both men and women, poverty tends to yield a higher burden on women and girls' health due to, for example, feeding practices (malnutrition) and use of unsafe cooking fuels

RISKS IN WOMEN'S HEALTH GLOBAL VIEW

Girl baby-child:

- Gender inequality
- Illegal circumcision
- Rape

Adolescence and adulthood:

- Rape
- STI's
- HIV
- Alcohol, Smoking
- Social pressure
- Eating disorders – fitting in
- Ectopic pregnancy
- Cancer: Breast, cervical,
- Obesity
- Osteoporosis

The needs of
gynaecological
nursing are
increasing



The lifespan of women has changed



Status in the society..



Home -> labour market



Women live longer



Sexual behaviour and rules

Woman as patient

- Often healthy – regular examinations + screening
- All ages
- Partners and family involved
- Fertility concerns
- Hormonal disorders - Menstrual disorders
- Infertility
- Contraception – pregnancy
- Menopause
- Infections
- Symptoms in reproductive organs



Special needs of gyn patients

She may feel...

- Loss and Grief
- Conflict about decisions
- Emotional stress
- Shame
- Self esteem loss
- Loneliness

A nurse can provide...

- Privacy
- Discreet care
- Support (grief work, decision making)
- Active listening
- Information
- Counselling

Reproductive Health (WHO)

- ...WHO's definition of health as a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity, reproductive health addresses the reproductive processes, functions and system at all stages of life. **Reproductive health**, therefore, implies that people are able to have a responsible, satisfying and safe sex life and that they have the capability to reproduce and the freedom to decide if, when and how often to do so.
- Implicit in this are the right of men and women to be informed of and to have access to safe, effective, affordable and acceptable methods of fertility regulation of their choice, and the right of access to appropriate health care services that will enable women to go safely through pregnancy and childbirth and provide couples with the best chance of having a healthy infant.

Sexual Health (WHO)

Sexual health is a state of **physical, mental and social** well-being in relation to sexuality. It requires a positive and respectful approach to sexuality and sexual relationships, as well as the possibility of having pleasurable and safe sexual experiences, free of coercion, discrimination and violence.

Women's health promotion

- Personal hygiene
- Strategies for detecting and preventing disease, STI's
- Issues related to sexuality and sexual function (contraception etc)
- Diet, exercise, and health-promoting practices that maintain and enhance health
- Stress management
- Lifestyle factors that can affect fertility

Strategies to promote women's health

- Promoting fertility awareness
- Regular examinations, as needed
- Open, non-judgmental environment
- Recognizing signs and symptoms of abuse
- Recognizing cultural differences and beliefs
- Respect



Anatomy

- The female reproductive system consists of external and internal structures
- Other anatomic structures that are involved:
Hypothalamus and pituitary gland of the endocrine system

Menses, periods, monthlies, menstruation

- Starts approx. at age 12,8
- Normal range 10-16v.
- Genetics, nutrition, activity
- Cycle 23-35 days, average 28 days
- Flow for 2-8 days
- 20-40ml (heavy/excessive limit is = 80ml)
- Every 3. woman have problems (painful or heavy)
- Flow day 1 = 1st day of the cycle

Follicular and Luteal phase

- **Follicular phase (days 1-14):** Ovary → follicles with egg cells → help of the pituitary gland releases FSH (follicle stimulating hormone)
- One follicle becomes dominant → a single mature egg (the other follicles shrink)
- The follicle → estrogen → increases over the follicular phase and peaks in the day or two prior to ovulation → the endometrium thickens
- High levels of estrogen → gonadotropin-releasing hormone (GnRH) → the pituitary gland → luteinizing hormone (LH) → LH and FSH surge → ovulation
- The egg → fallopian tube → fertilization
- No fertilization → the egg disintegrates after 24 hours
- The follicle → corpus luteum

Luteal phase (days 14-28):

- The egg is released → levels of FSH and LH ↓
- The corpus luteum produces progesterone
- Fertilization → the corpus luteum continues to produce progesterone which prevents the endometrial lining from being shed
- No fertilization → the corpus luteum disintegrates, → progesterone levels drop → endometrial lining can be shed



- *Eumenorrhea* = normal menses
- *Polymenorrhea* = frequent and short cycles 23 days
- *Oligomenorrhea* = infrequent, over 35 days
- *Amenorrhea* = absence of menses
- *Primary amenorrhea* = menses have never started
- *Secunary amenorrhea* = menses have started and then become absent
- *Hypomenorrhea* = short or extremely light menstrual flow
- *Hypermenorrhea* = abnormally profuse or prolonged menstrual flow
- *Menorrhagia* = heavy flow
- *Metrorrhagia* = abnormal or dysfunctional menses
- *Dysmenorrhea* = painful menses

Underlying causes

- Medical condition, illness
- Lifestyle, environment
- Stress
- Heavy exercise
- Medication
- Changes in weight
- Overweight, underweight
- Problems with uterus
- Problems with endometrium
- Infection
- IUD
- Tumors
- Structural abnormalities
- Chromosomal abnormalities (e.g. Turner syndrome)
- Intrauterine adhesions
- Endocrine disorders (e.g. hypothyroidism)
- Coagulation disorders
- Age
- Idiopathic

Gynecological/pelvic examination

- interview

- Menses anamnesis, cycles, last menstrual period (LMP)
- Menarce, menopause
- Gynecologic and obstetric anamnesis
- Medical history
- Contraception
- Other relevant information
- Medication
- Height, weight, BP
- Symptoms

Gynecological/pelvic examination

- Inspection
- Examination w speculum
- Bimanual palpation
- Ultrasound (vaginal or abdominal)
- Labs (such as B-PVK, P-CRP, S-hCG)
- Screening for HPV or STI's
- Breast examination

Consider

- The cleanliness and orderliness of the examination room
- Instruments, sample equipment
- Examination table, protection, lighting
- Assisting the doctor
- Patient guidance, also written, when to expect results, medication and other instructions
- Documentation
- Cleaning the instruments

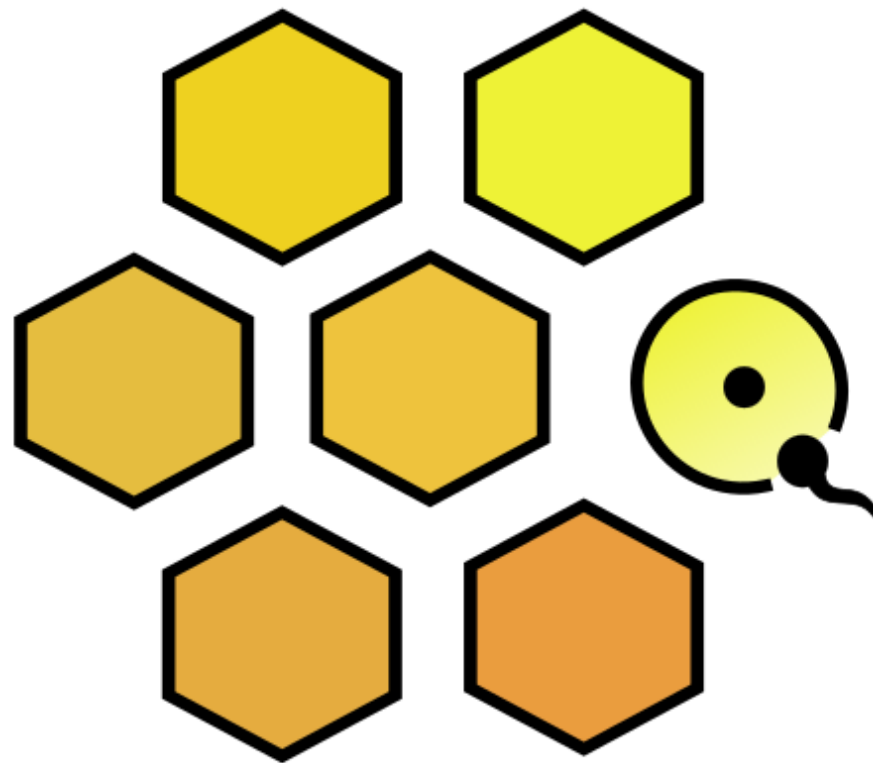
GYN samples

- Pap –smear
- HPV
- Cervix
- Discharge
- Urine
- Herpes
- Endometrium
- Tissue

GYN procedures

- Adhesiolysis
- Cervical (Cone) Biopsy
- Colposcopy
- Colporrhaphy (Surgical repair of the vaginal wall. It is used to repair enteroceles (hernias))
- Dilation and Curettage (D&C)
- Endometrial or Uterine Biopsy
- Fluid-Contrast Ultrasound (FCUS), Salpingography
- Hysterectomy

<http://preco.tamk.fi/>



Fertility and lifestyle factors



- Are modifiable
- Have a crucial role in health and wellbeing, therefore also reproduction
- Demands balance
- Preventing infertility is as important as preventing unwanted pregnancies

How many children?

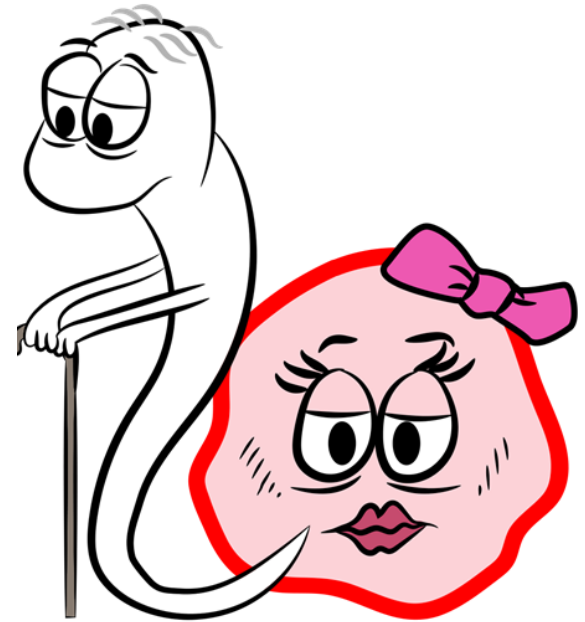
Table I Maximum female age (years) at which couples should start building a 1-, 2- or 3-child family, for a 50, 75 and 90% chance of realizing the desired family size, with and without IVF.

Chance of realization	1-child family	2-child family	3-child family
Without IVF			
50%	41	38	35
75%	37	34	31
90%	32	27	23
With IVF			
50%	42	39	36
75%	39	35	33
90%	35	31	28

(Habbema et al. 2015)

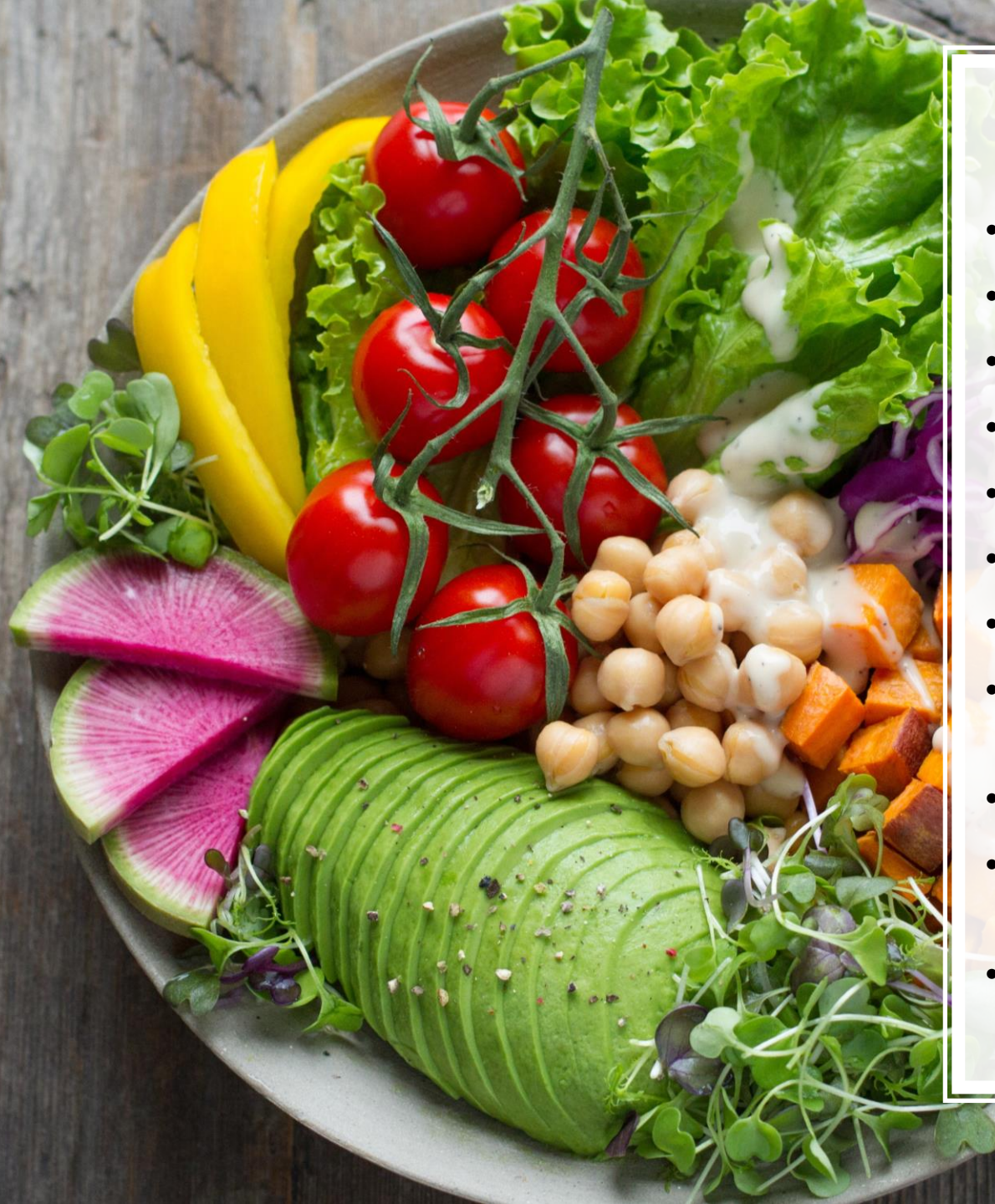
Age

- Fertility decreases with age
- Takes people by surprise
- Optimal age is 20-35 years
- *Informed* choice
- What is needed? Better information that will reach everyone
- Freezing eggs --> like lottery



Increasing age causes

- Menstruation cycle problems
- Decrease in testosterone
- Sperm quality decreases after 35 years
- Early pregnancy complications



Diet/nutrition

- Plays a vital role
- Regular, colourful, balanced
- Antioxidants
- Folic acid and zink
- Walnuts
- Avoid processed foods
- Choose food without labels
- Avoid food and drinks with additives, colourants...
- Avoid excessive coffeine
- Normal weight -> hormonal balance
- Good nutrition reaches far!
How far?

Activity and exercise

- Daily activity
- Not under, but not over
- Leave time to recover



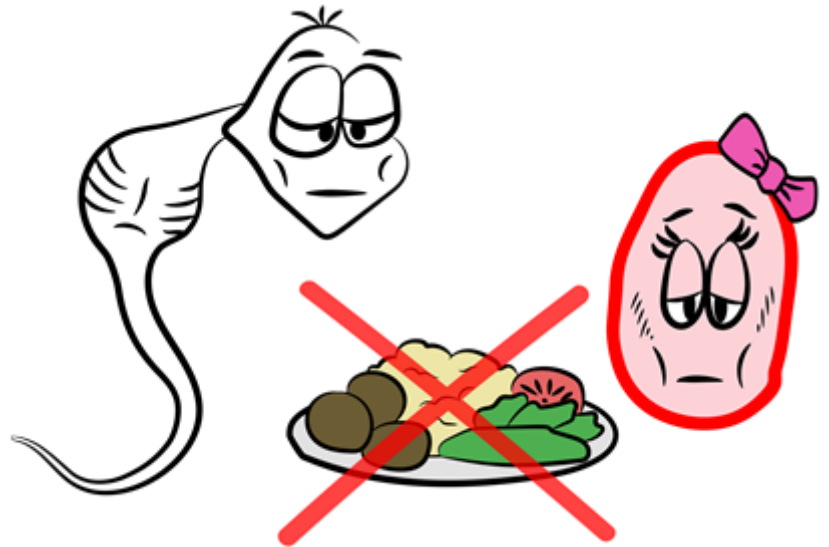
Overweight



- Causes menstruation irregularities, anovulation, problems in getting pregnant, increases miscarriages
- Lowers sperm quality (motility, count, dna), affects also health of pregnancy (fetus)
- Fat tissue --> estrogen (both)
- 10% weight loss may help and fix

Underweight

- Decreases sperm quality
- Decreases function of ovaries
- Harms fertilization and proposes a risk to normal pregnancy process
- Consequences of eating disorders may never reset
- Risk for malnutrition
- Risk for prematurity

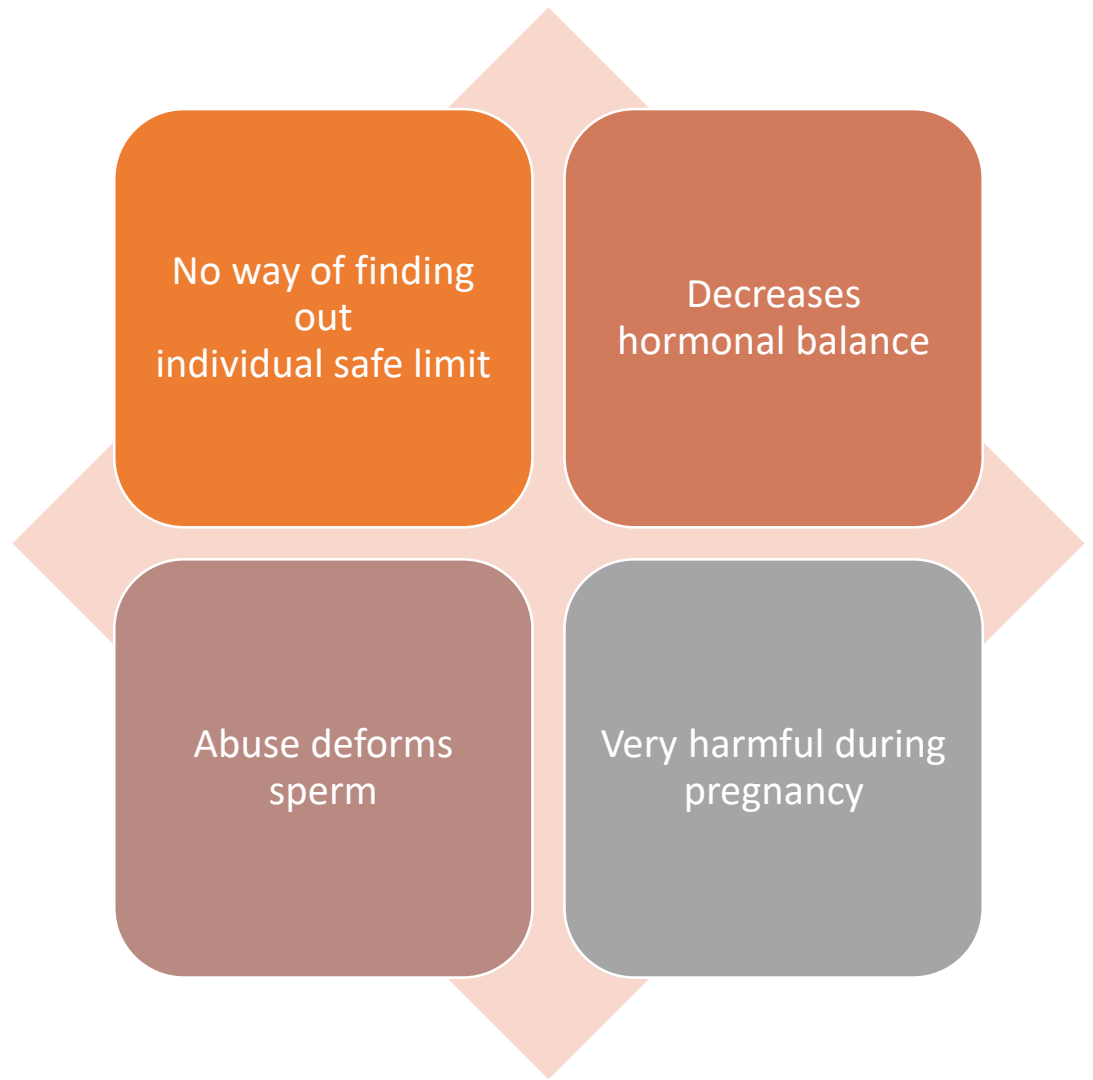


Smoking



- Affects every process in fertility
- Poisons ovum
- Decreases sperm quality
- Increases risk for miscarriages
- Risks transfers over generations
- Can cause infertility in unborn child
- Even passive smoking is harmful
- Always beneficial to cease!

Alcohol



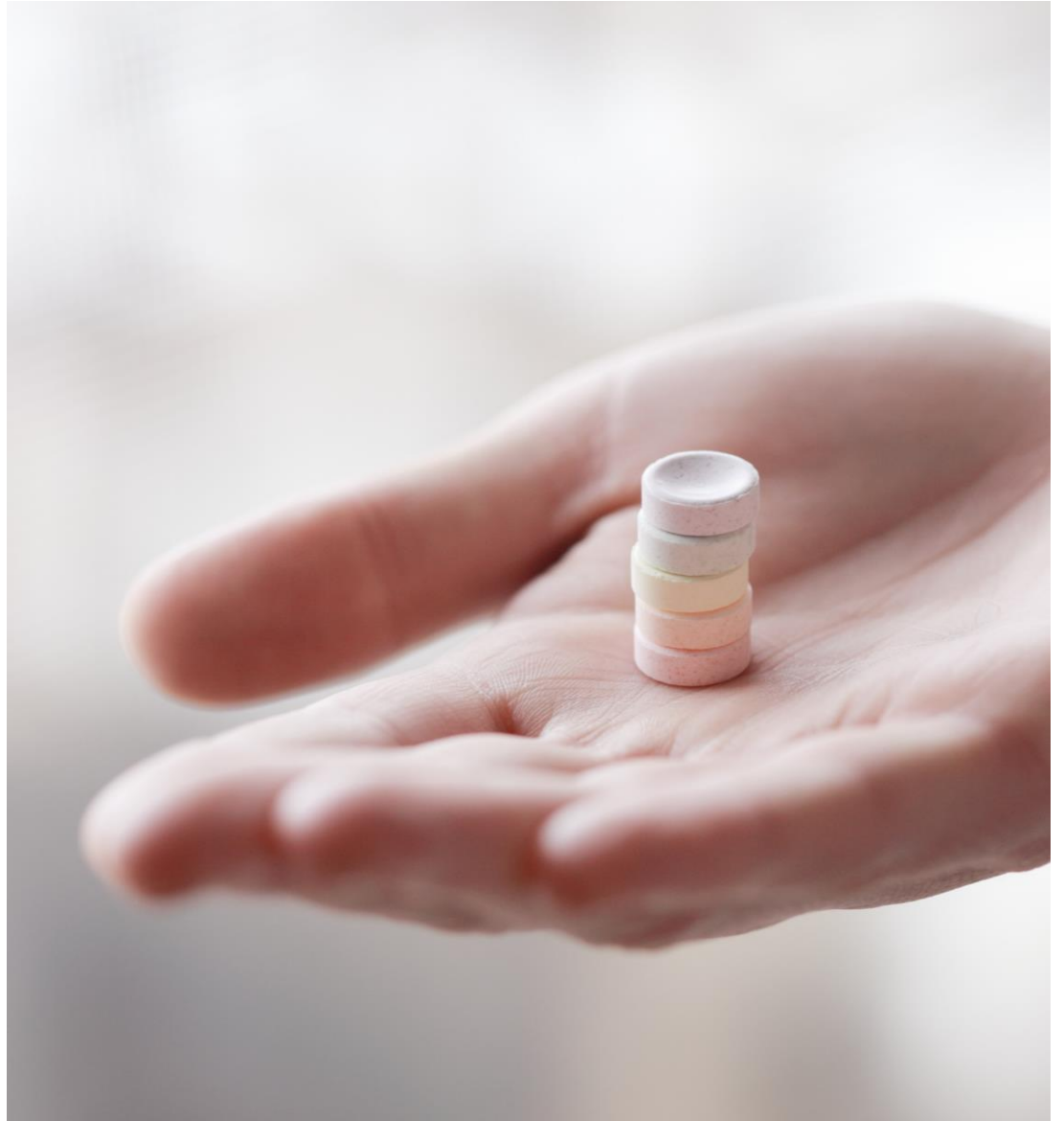
Stress and recovery

- Stress and depression decreases hormonal balance
- Unability to recover will make stress chronic
- Affect sleep
- Sleep can enhance fertility!



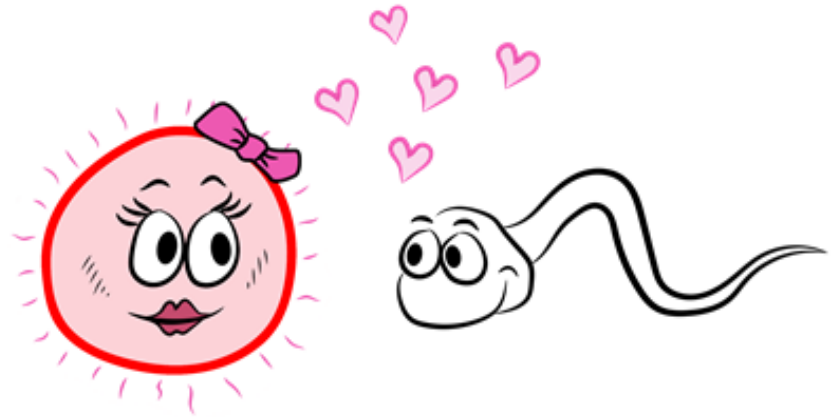
Other factors

- Medication
- STI's
- Environmental factors
- Chemicals



Preconception health and care

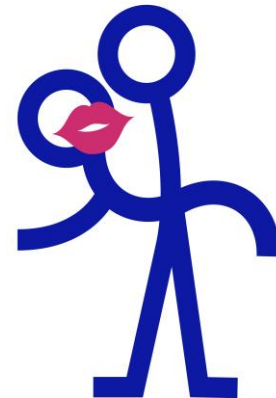
- Fertility awareness
- Easier pregnancies
- Healthier babies
- Couples' empowerment
- Happier parents
- How do we reach young adults?



Family planning

- Contraception (the prevention of fertilization)
- Contragestion (preventing the implantation of the blastocyst)
- Abortion (the removal or expulsion of a fetus or embryo from the uterus)
- Contraception → barrier methods (condoms or diaphragm), hormonal or injectable
- Contragestives → post-coital → intrauterine devices or the emergency contraceptive pill (Levonelle or ellaOne)

- Sterilization
- Behavioral methods (fertility awareness)
- Hormonal (oral hormonal contraceptives OCPs or the pill, the patch, and the vaginal ring) → estrogen and progestin (or progestin-only) → inhibit the natural cyclical hormones → stops ovulation
- Progestin-only → thickens mucus in the cervix, stops ovulation (40% continue to ovulate), thins endometrium
- Condom
- IUD's (coil)



Hormonal IUD

- Local effect
 - Mini-IUD's Jaydess (3 years) and Kyleena (5 years)
 - Mirena (5-7 years)
 - Also for youth
-
- Hormone free options?

Myths

- Menstruation is healthy
- Contraception harms fertility
- Weight gain
- Cancer risk
- Elevated vein thrombosis risk (fact: estrogen)
- Mood imbalance
- "Unsuitable for everyone in our family"

Programming strategies for Postpartum Family Planning



World Health
Organization



USAID
FROM THE AMERICAN PEOPLE



Maternal and Child Health
Integrated Program

PPFP

- Family planning (FP) is an essential component of health care provided **during the antenatal period**, immediately after delivery and during the first year postpartum (WHO 2009)
- Postpartum family planning (PPFP) is defined as the prevention of unintended pregnancy and closely spaced pregnancies through the first 12 months following childbirth

- 2 years between pregnancies (recommendation)
- Closely spaced pregnancies within the first year postpartum are the riskiest for mother and baby, resulting in increased risks for adverse outcomes, such as preterm, low birth weight and small for gestational age
- Risk of child mortality is highest for very short birth-to-pregnancy intervals (<12 months)

Why?

- Women have a great need for it, but often without
- Two groups: "Spacers" ja "Limiters"
- 27 countries were questioned -> 95% of women wants to avoid pregnancy 0-12 months postpartum, still 70% are not using any contraceptives...
- 30% maternal deaths can be prevented and 10% of child mortality with sufficient family planning



Gyn infections

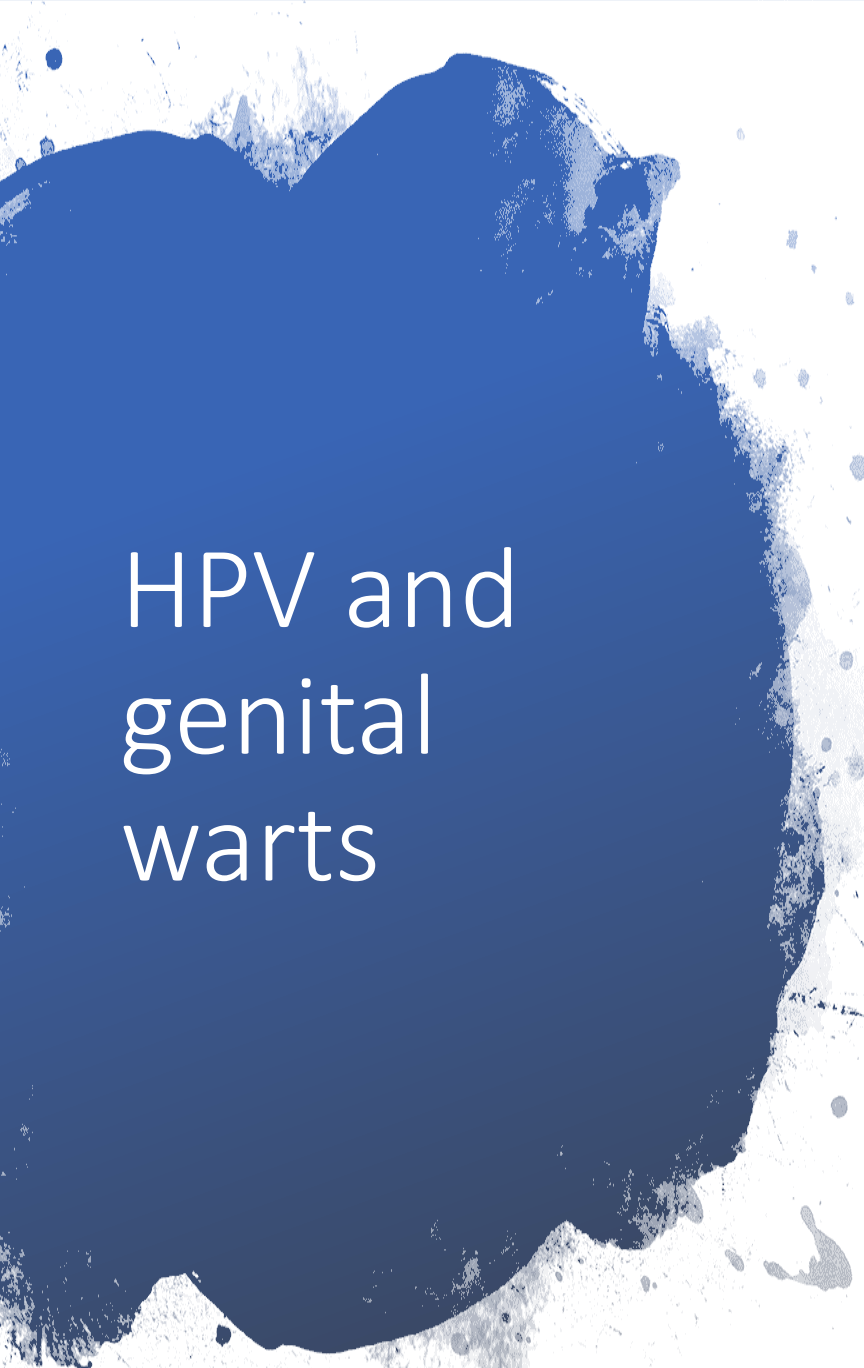
Non-sexually transmitted infections

- Bacterial vaginosis
- Candida

Sexually transmitted infections (STIs)

- HPV (types 6 and 11 causes genital warts)
- Chlamydia
- Gonorrhoea
- Trichomonas vaginalis
- Genital herpes (Herpes simplex 1 or 2)

→ Pelvic inflammatory disease!

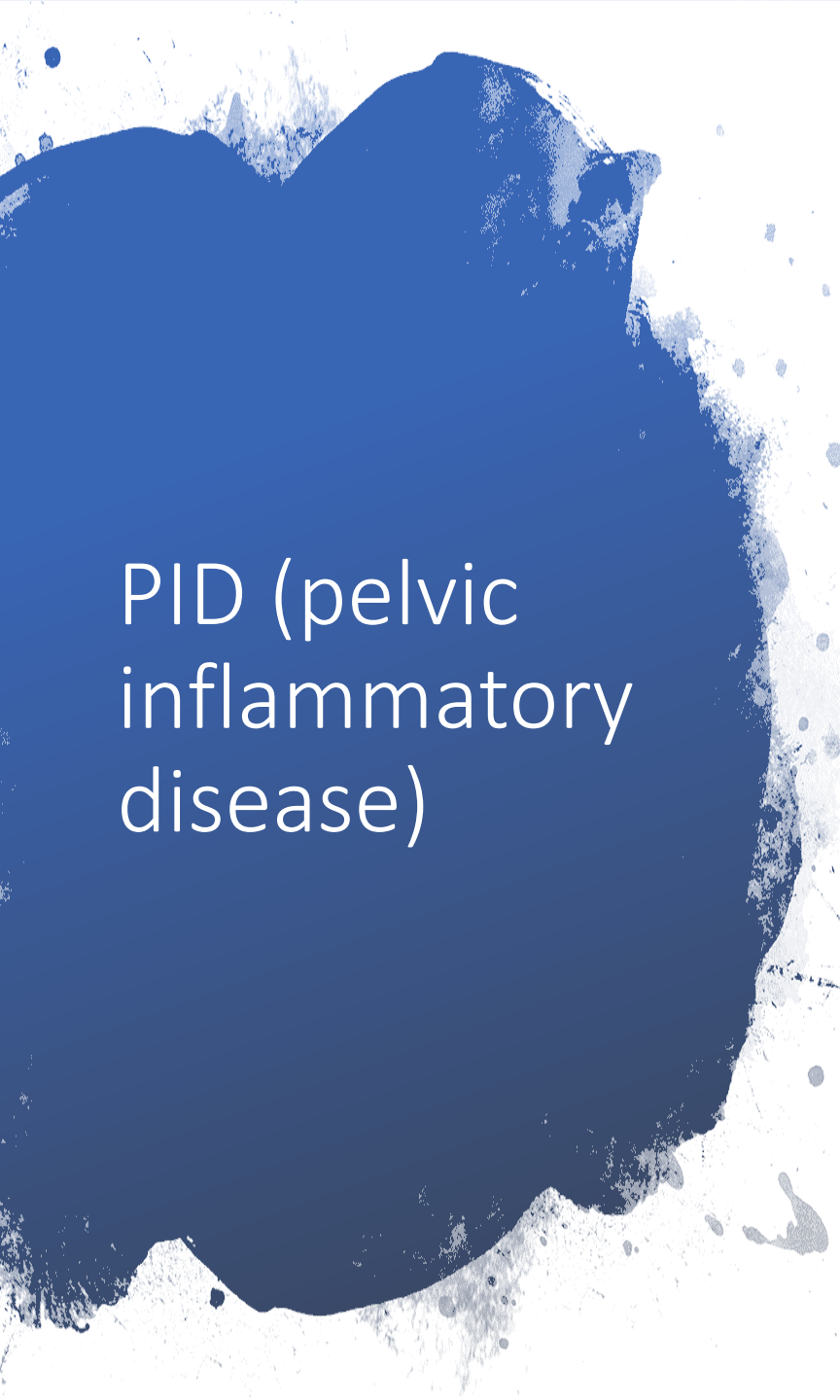


HPV and genital warts

- Cancer risk in HPV types 16, 18, 31, 33, 45, 56
- Low risk viruses HPV 6, 11, 42, 43, 44
- HPV 6, 11 causes warts (20 types altogether)
- Warts are not typically turning cancerous
- Heals in 90% of cases by itself in 1-2 years
- Typically lasts 8 months in asymptomatic 13-23 year-old women
- Sexually transmitted, condom doesn't protect
- Warts can be treated (or not)

Upper genital tract infections (UGTI)

- Bacterial infections of the uterus (endometritis) uterine wall (myometritis), the uterine serosa and broad ligaments (parametritis), the fallopian tubes (salpingitis), the ovary (oophoritis), and the pelvic peritoneum (peritonitis)
- May be sexually transmitted, or a complication after childbirth or abortion



PID (pelvic inflammatory disease)

- Infection of the female reproductive organs
- STI bacteria spread from vagina to uterus, fallopian tubes or ovaries
- Mild to severe symptoms: pain in the lower or upper abdomen, fever, painful sex and urination, irregular bleeding, increased or foul-smelling vaginal discharge, tiredness
- CRP ↑, ultrasound
- Antibiotics



Senile or atrophic vaginitis

- Inflammation or irritation of the vagina
- Thinning and shrinking of the tissues of the vagina and decreased lubrication of the vaginal walls
- Estrogen ↓
- Common in post menopausal women
- Vaginal soreness, discharge, burning on urination, painful intercourse and light bleeding after
- Hormone replacement therapy → topical estrogen cream/tablets → vaginal lubricants
- Regular sex is good!



Other gyn issues

- Endometriosis
- Uterine fibroids
- Ovarian cysts

Gyn cancers

- Cervical cancer
- Endometrial cancer
- Ovarian cancer

Questions

- How does gyn surgery differ from other surgeries?
- What effects does lack of estrogen cause?
- How does hysterectomy affect sexual health?
- What do you know about menopause?





Early pregnancy disorders



Miscarriage

- If the pregnancy ends before week 22, or the fetus weighs less than 500g
- The most common pregnancy disorder
- Approx 30-60% of all pregnancies, some unnoticed
- 15% of all pregnancies
- Approx 80% of all miscarriages happen before week 13
- Reasons: 60% fetal, can be male/female cause



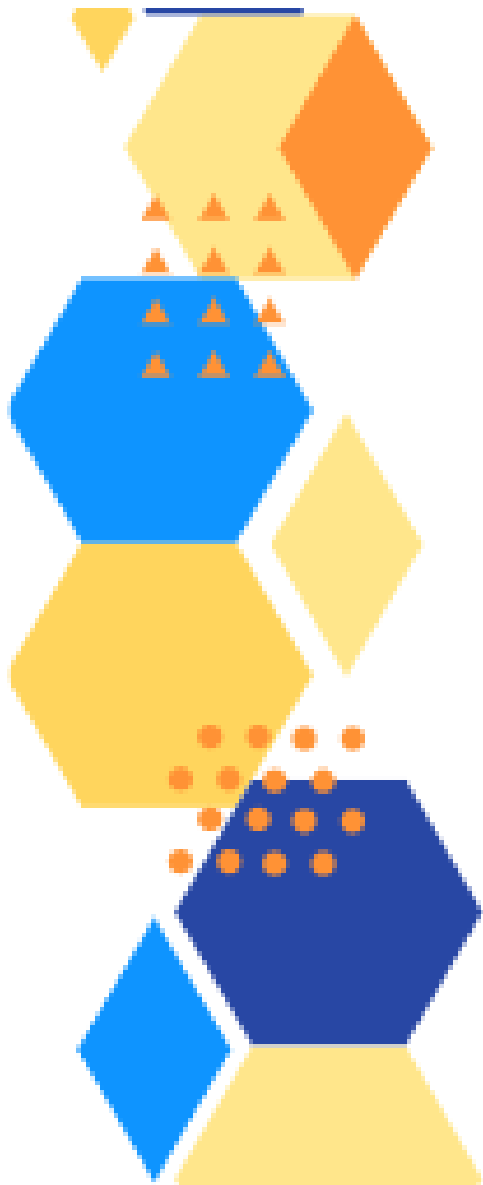
Infertility

- No pregnancy after actively trying for 1 year, if over 35, 6mths
- Primary or secondary
- Endocrine disorders, menstrual problems, damage, endometriosis, anatomic abnormalities, childhood illness
- Lifestyle factors
- Age

Treatments

- Examination of both
- Interview
- Female: Gyn exam, samples, BP, weight, blood tests (TSH, FSH, prolactin)
- Male: Clinical exam, andrological exam, sperm sample, weight
- Treatment of underlying cause, IUI, IVF, ICSI





Maternity care

A large orange circle is positioned on the left side of the slide, partially cut off by the edge.

Statistics
from
your local
country





What are the
symptoms of
pregnancy?



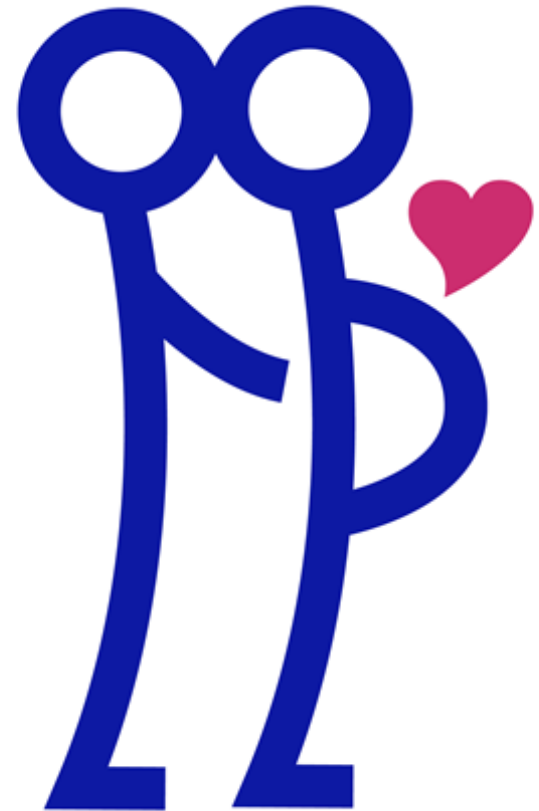
ANC = antenatal care

- **Antenatal care (ANC)** can be defined as the care provided by **skilled health-care professionals** to pregnant women and adolescent girls in order to ensure the best health conditions for both mother and baby during pregnancy. The components of ANC include:
 - risk identification
 - prevention and management of pregnancy-related or concurrent diseases
 - health education and health promotion



6 months before

- Folic acid and vitamin D already in advance
- Nutrition
- Alcohol, smoking, drugs, medication
- Normal activity
- Chemicals, cosmetics, plastics
- Stress
- Addictions
- Time use

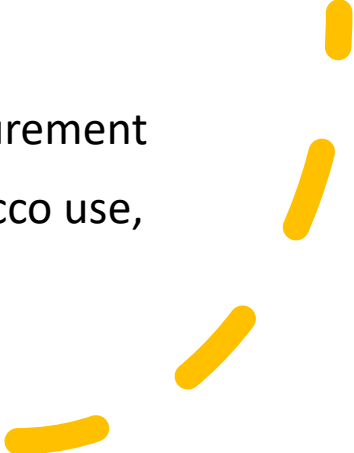


Maternity
Clinic
(as part
of primary
health care
services in
Finland)
-an example
of services

- Public health nurse or midwife led clinics
- 10-15 visits with nurse/midwife (first @8-12 weeks), 2 with MD, 1 visit after birth
- Parent skills training & info
- Fetal screening x 2 (11+0-13+6 and 19-21)

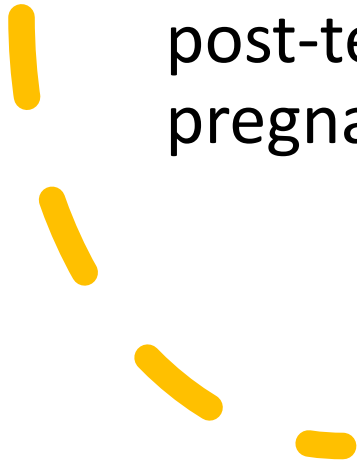


Antenatal assessment

- Infections: HIV, tuberculosis, HBV, STI's (i.e. syphilis, chlamydia), bacteria vaginosis
 - Other infections (GBS, oral)
 - Blood group and antibodies, Hb, BP, weight, growth of uterus and fetus
 - Asymptomatic bacteriuria (ASB)
 - Glucose and protein in urine
 - Gestational diabetes mellitus (GDM), glucose intolerance test
 - Antenatal cardiotocography/ ctg or ultrasound (not recommended)
 - Routine Doppler ultrasound (not recommended)
 - Daily fetal movement counting
 - Symphysis-fundal height (SFH) measurement
 - Intimate partner violence (IPV), tobacco use, substance use
- 



Ultrasound (WHO)



One ultrasound scan before 24 weeks of gestation (early ultrasound) **is recommended** for pregnant women to estimate gestational age, improve detection of fetal anomalies and multiple pregnancies, reduce induction of labour for post-term pregnancy, and improve a woman's pregnancy experience

Health guidance

- How to eat, sleep, be active, stay healthy
- Learn to know the baby -> early interaction begins
- Sexuality
- Couple's wellbeing
- Entering into parenthood
- Baby caring skills
- Breastfeeding





What kind of fetal screening does your country provide?



What can
empower
parenthood?



Risks in pregnancy

- Premature labor
- Induced labor
- Ventouse/Vacuum extraction
- Forceps
- Cesarean section
- Breech
- Multiple pregnancy
- Placenta previa
- Hemorrhage
- Thrombosis
- Alcohol or substance abusers
- Mental health problems
- Fetal problems
- Infections
- Hyperemesis
- Gestational diabetes
- Chronic illnessess
- Fear of labour
- Abnormal postnatal phase



Gestational diabetes

- Macrosomia in newborns
- Newborn hypoglycemia
- Risk for overweight later in life
- Other effects on the childhood? Learning?
- Increased risk for mother to develop type 2 diabetes in the future

Hemorrhage during pregnancy

- Miscarriage
- Issue in the cervix
- Placental abruption (abruptio placentae)
- Placenta previa
- Uterine rupture
- Vulvar varicosities



Hemorrhage during pregnancy

- Pregnancy duration?
 - Medical history
 - Chain of events
 - Amount, quality, smell?
 - Pain? 0-10?
 - Contractions?
 - Fetal movement?
 - Other symptoms?
 - Mental status?
- BP, pulse
 - Fetal heartbeat (120-160bpm)
 - Labs
 - Ultrasound
 - Treating symptoms
 - Rest, calm
 - → Birth hospital
 - Shock treatment
 - Nothing p.o.

Midwifery (in Finland)

- Progression of labor, answers to woman's needs
- Woman's general wellbeing
- Fetal heartbeat (CTG)
- Colour of amniotic fluid
- Contractions
- Cervix dilation
- Pain management
- Medication
- Birth
- Supports the perineum
- Receives newborn
- Afterbirth
- Hemorrhage
- Sutures
- Breastfeeding initiation
- Critical 2 hours postpartum
- Documentation
- Transfer to postpartum ward



Stages of labor



Postpartum
period

Postpartum period and issues to consider

- 6-12 weeks after childbirth
- Recovery from birth
- General and mental wellbeing
- Size of uterus, pain, discharge
- Episiotomy, tears, sutures, healing
- Urinating and bowel movements
- Possible cesarean section incision
- Breasts, breastfeeding
- Family planning
- Early interaction
- Lifestyle
- Parenthood, relationship with spouse and family

Basics of breastfeeding



Prolactin keeps up milk production, oxytocin helps the let-down of milk



When there is request, there is production



Milk is produced continuously



Breastfeeding (or pumping) keeps milk production up



8 feedings (or pumping times) per day (up to 10-12 in the first weeks)



Technique!

Basics of breastfeeding



Initiation is important



Teach mother to pump



Make sure medication is safe to use during



Do not separate mother and infant!



Drinking, eating and sleeping (and relaxing)



Always feed/pump both breasts

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