

**PRESENTATION TOPIC:
ADOLESCENCE
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INTRODUCTION

GROWING UP IS A
NATURAL PROCESS .
THE PERIOD OF LIFE
, WHEN THE BODY
UNDERGOES
CHANGES , LEADING
TO REPRODUCTIVE
MATURITY IS
CALLED
ADOLESCENCE .



ADOLESCENTS

ADOLESCENCE BEGINS AROUND THE AGE OF 11 AND LASTS UPTO 18. SINCE THIS PERIOD COVERS THE TEENS [13 TO 18]. ADOLESCENTS ARE ALSO CALLED TEENAGERS

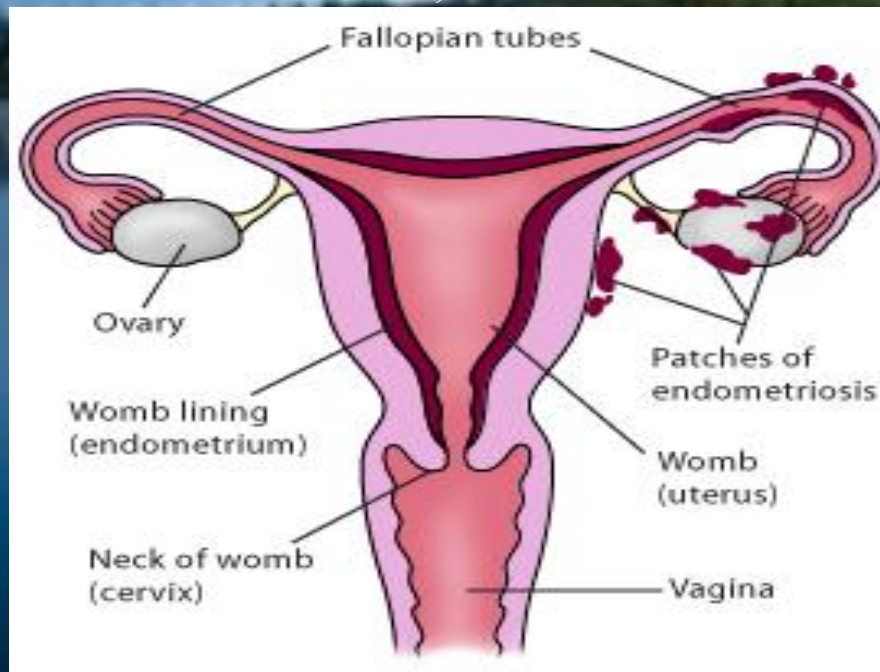


In girls adolescence may begin earlier than boys .



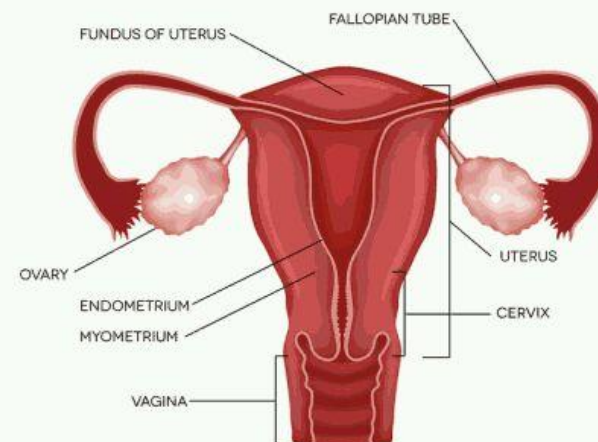
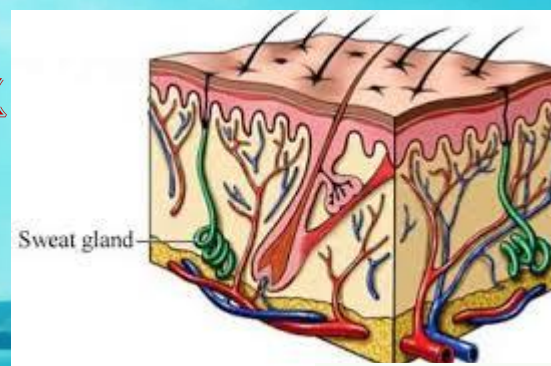
Reproductive Maturity in Puberty

THE MOST IMPORTANT CHANGE WHICH MARK PUBERTY IS THAT BOYS AND GIRL BECOME CAPABLE OF REPRODUCTION . PUBERTY ENDS WHEN AN ADOLESCENT REACHES REPRODUCTIVE MATURITY .



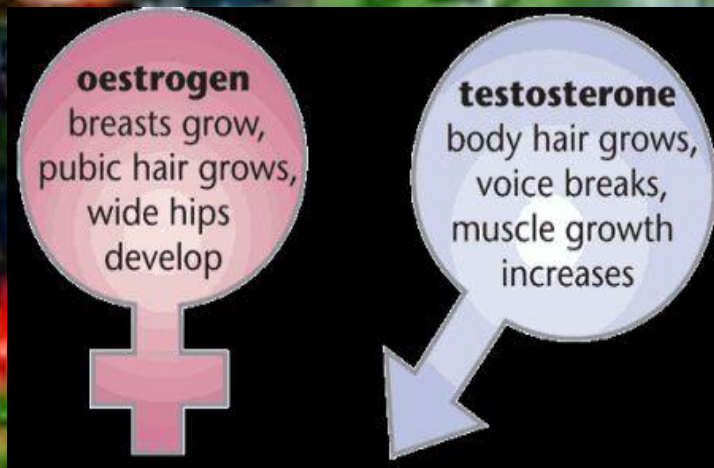
Changes in Puberty

- ❖ INCREASE IN HEIGHT
- ❖ CHANGE IN BODY SHAPE
- ❖ VOICE CHANGE
- ❖ INCREASE ACTIVITY OF OIL GLANDS
- ❖ DEVELOPMENT OF SEX ORGANS
- ❖ REACHING MENTAL AND EMOTIONAL MATURITY



Secondary sexual character

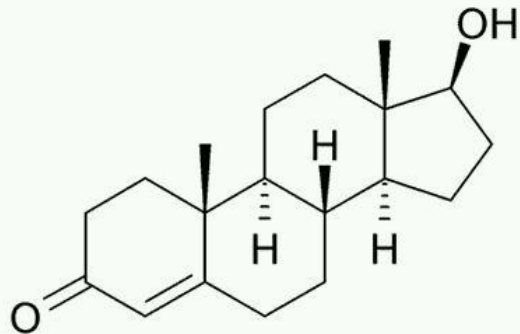
THE FEATURES WHICH HELP TO DISTINGUISH THE MALE FROM FEMALE ARE CALLED SECONDARY SEXUAL CHARACTERS . IN GIRLS , BREASTS BEGIN TO DEVELOP AT PUBERTY AND BEGIN TO GROW FACIAL HAIR [MOUSTACHES AND BEARD]



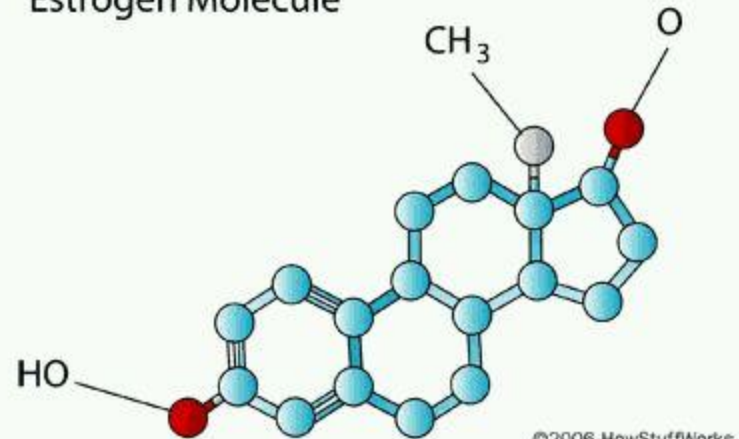
Hormones

THE CHANGES WHICH OCCURS IN BODY ARE CONTROLLED BY HORMONES . THESE ARE CHEMICAL SUBSTANCE . THESE ARE SECRETIONS FROM ENDOCRINE GLANDS .

Testosterone

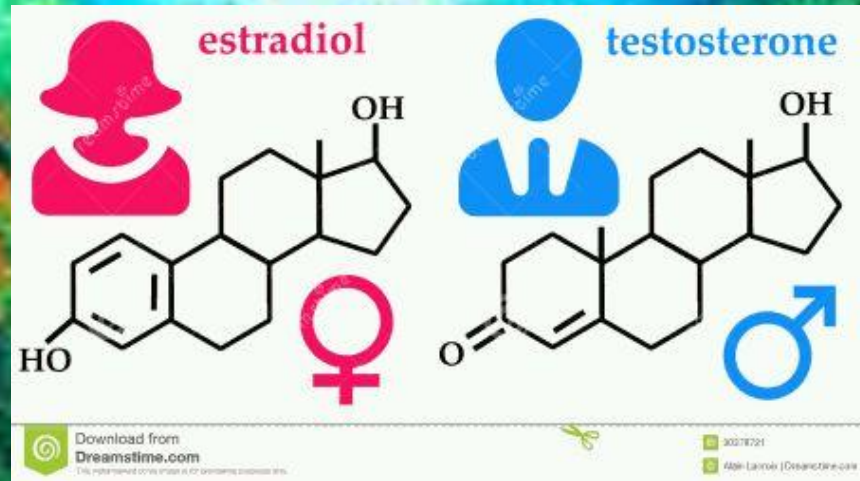


Estrogen Molecule



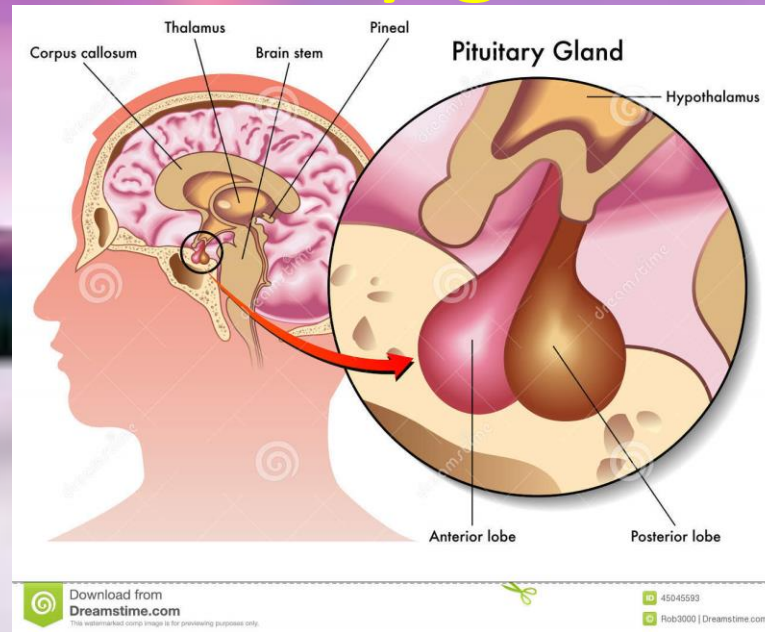
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Testosterone and Estrogen



THE MALE HORMONE TESTOSTERONE BEGINS TO BE RELEASED BY THE TESTIS AT ONSET OF PUBERTY . ONCE , PUBERTY IS REACHED IN GIRLS . OVARIES BEGIN TO PRODUCE THE FEMALE HORMONE ESTROGEN WHICH MAKES BREASTS DEVELOP .

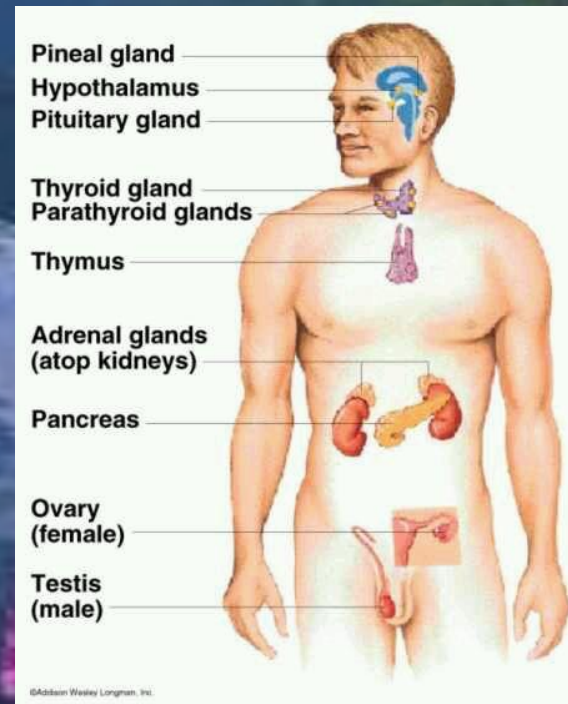
Pituitary gland



THE PRODUCTION OF THESE HORMONES IS UNDER THE CONTROL OF ANOTHER GLAND CALLED PITUITARY GLAND.

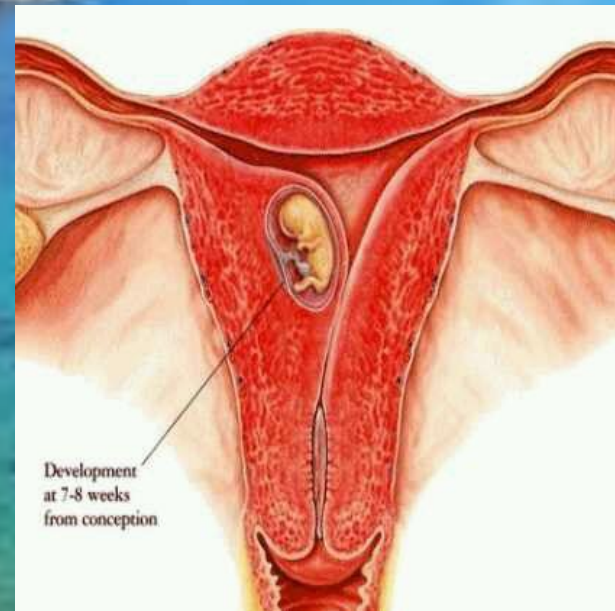
Target site

ENDOCRINE GLANDS RELEASE HORMONES INTO THE BLOODSTREAM TO REACH A PARTICULAR BODY PART CALLED TARGET SITE.



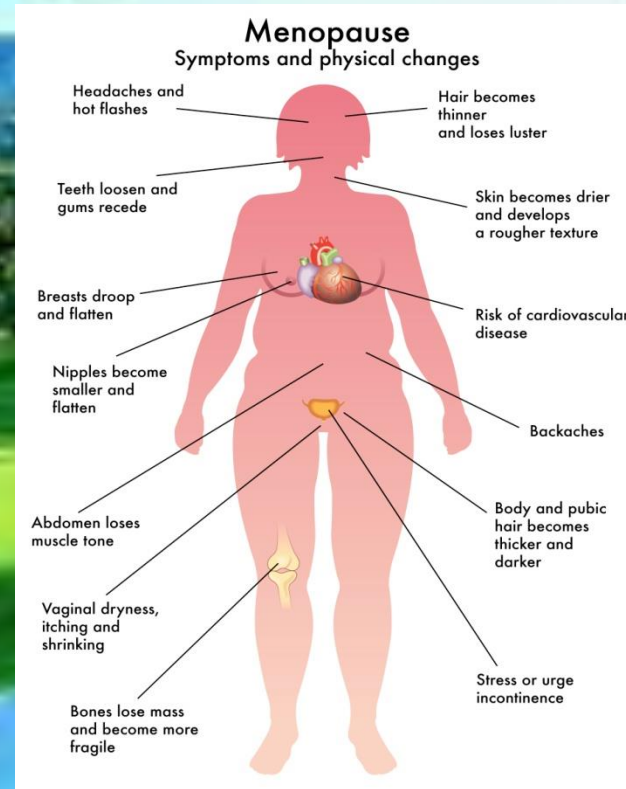
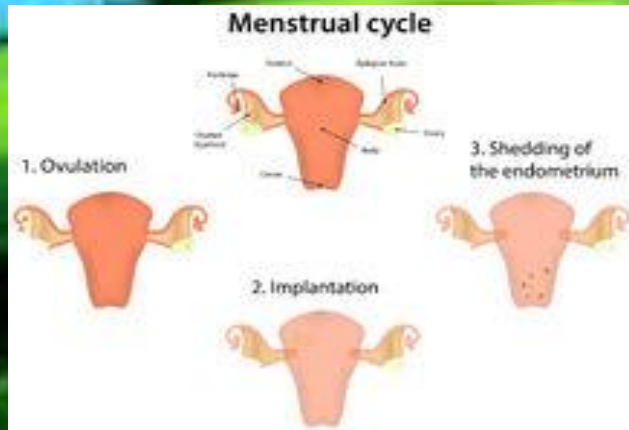
Menstruation

WHEN A SPERM FUSES WITH THE EGG INSIDE THE BODY OF A HUMAN FEMALE, THE UTERINE WALL IN FEMALES PREPARES ITSELF TO RECEIVE THE DEVELOPING FERTILIZED EGG. IN CASE THERE IS NO FERTILIZATION, THE THICKENED LINING OF THE UTERINE WALL AND BREAK DOWN AND GOES OUT OF THE BODY ALONG WITH BLOOD CALLED MENSTRUATION.



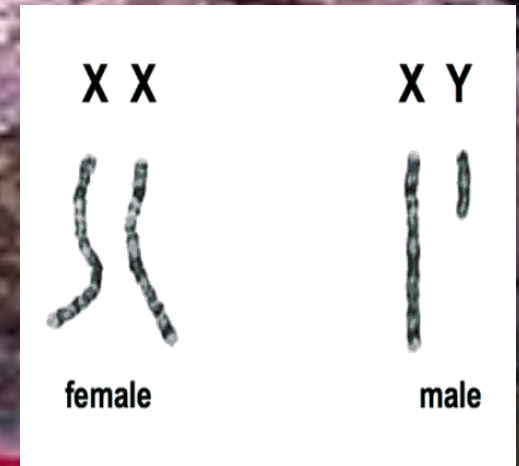
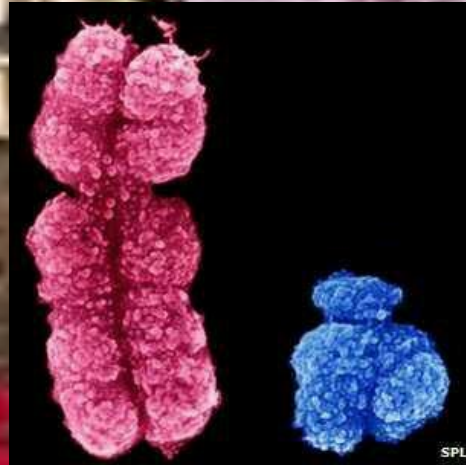
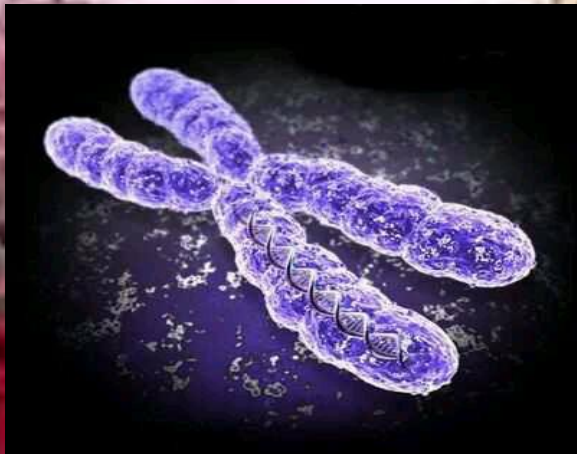
Menarche and menopause

THE FIRST MENSTRUAL FLOW BEGINS AT PUBERTY CALLED MENARCHE. AT THE 45 TO 50 YEARS OF AGE, THE MENSTRUAL CYCLE STOPS. STOPPAGE OF MENSTRUATION IS TERMED AS MENOPAUSE.



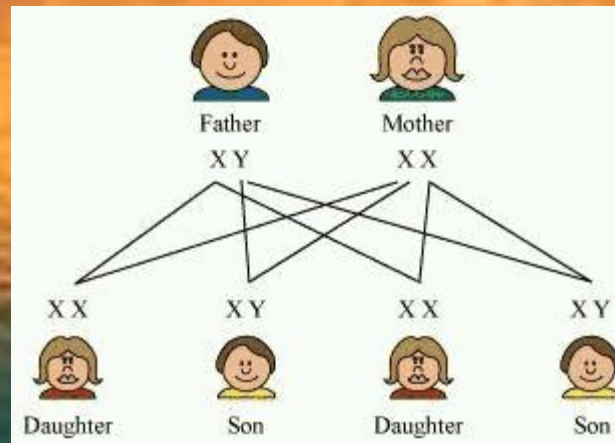
Chromosomes

ALL HUMAN BEINGS HAVE 23 PAIRS OF CHROMOSOMES IN THE NUCLEI OF THEIR CELLS . TWO CHROMOSOMES OUT OF THESE ARE SEX CHROMOSOMES NAMED [X] & [Y] .



Sex determination in newborns

A SPERM CARRIES X AND Y CHROMOSOME WHILE A FEMALE EGG CARRIES BOTH X AND Y CHROMOSOMES . SEX OF THE UNBORN CHILD DEPENDS ON WHETHER THE ZYGOTE HAS XX OR XY CHROMOSOME . THE XY COMBINATION RESULTS IN MALE CHILD WHILE THE XX COMBINATION RESULTS IN A FEMALE CHILD .



Thyroid Gland In Frog

METAMORPHOSIS IN FROGS IS CONTROLLED BY THYROXINE PRODUCED BY THYROID GLAND . THYROXINE PRODUCTION REQUIRES THE PRESENCE OF IODINE IN WATER IF THE WATER IN WHICH THE TADPOLES ARE GROWING DOES NOT CONTAIN SUFFICIENT IODINE THEN TADPOLES CANNOT BECOME ADULTS



THE PHYSICALLY ,SOCIALY AND MENTALLY
WELL BEING OF AN INDIVIDUAL IS
REGARDED AS INDIVIDUAL'S HEALTH



Health

**WALKING AND PLAYING IN FRESH AIR
KEEPS THE BODY FIT AND HEALTHY ALL
BOYS AND GIRLS SHOULD TAKE WALKS
EXERCISE AND PLAY OUT DOOR GAMES .**



Say no to drugs

ADOLESCENCE IS A PERIOD OF MUCH ACTIVITY IN THE BODY AND MIND WHICH IS A NORMAL PART OF BODY .IF ANYBODY SUGGESTS THAT YOU WILL GET RELIEF IF YOU TAKE DRUGS JUST SAY NO TO DRUGS .





THE END

