

Unit 2 KA1: Structure and Function of Reproductive Organs

Draw and label the site of **gamete production** in the female and male reproductive systems.

Female Including labels: follicle, immature ova, mature ova, corpus luteum and ovulation

Sperm are produced in

Testosterone is produced in

| Hormone/fluid | Where is it Produced? | Function |
|---------------|---------------------------------|----------|
| FSH | | |
| ICSH | | |
| | Interstitial cells | |
| | Prostate gland/seminal vesicles | |

Gametes are haploid. Give a description of the term **haploid**.

Male: Include labels; sperm, germline cell, interstitial cell and seminiferous tubule

Complete the table for the male reproductive system

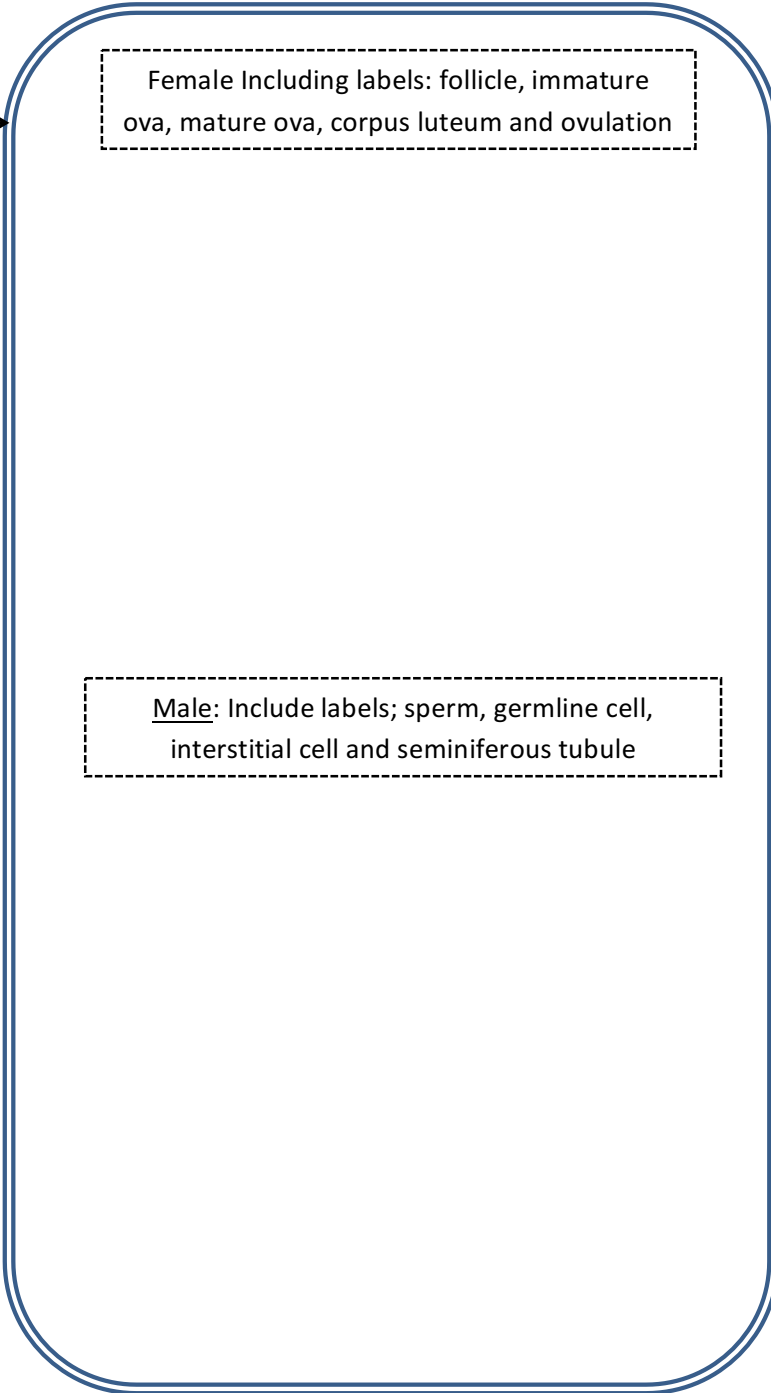
[Empty rounded rectangular box]

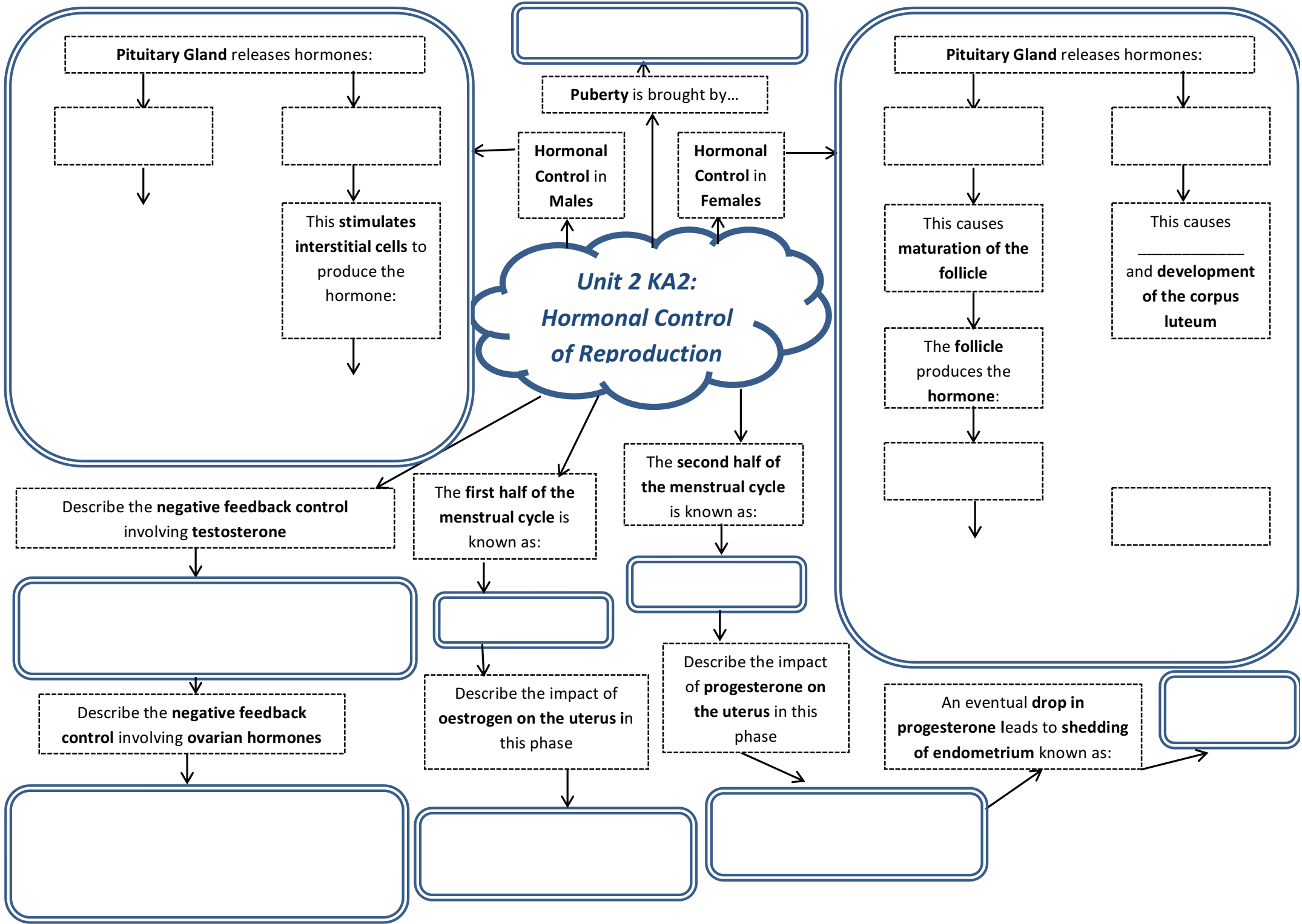
Name the **site of fertilisation** in humans

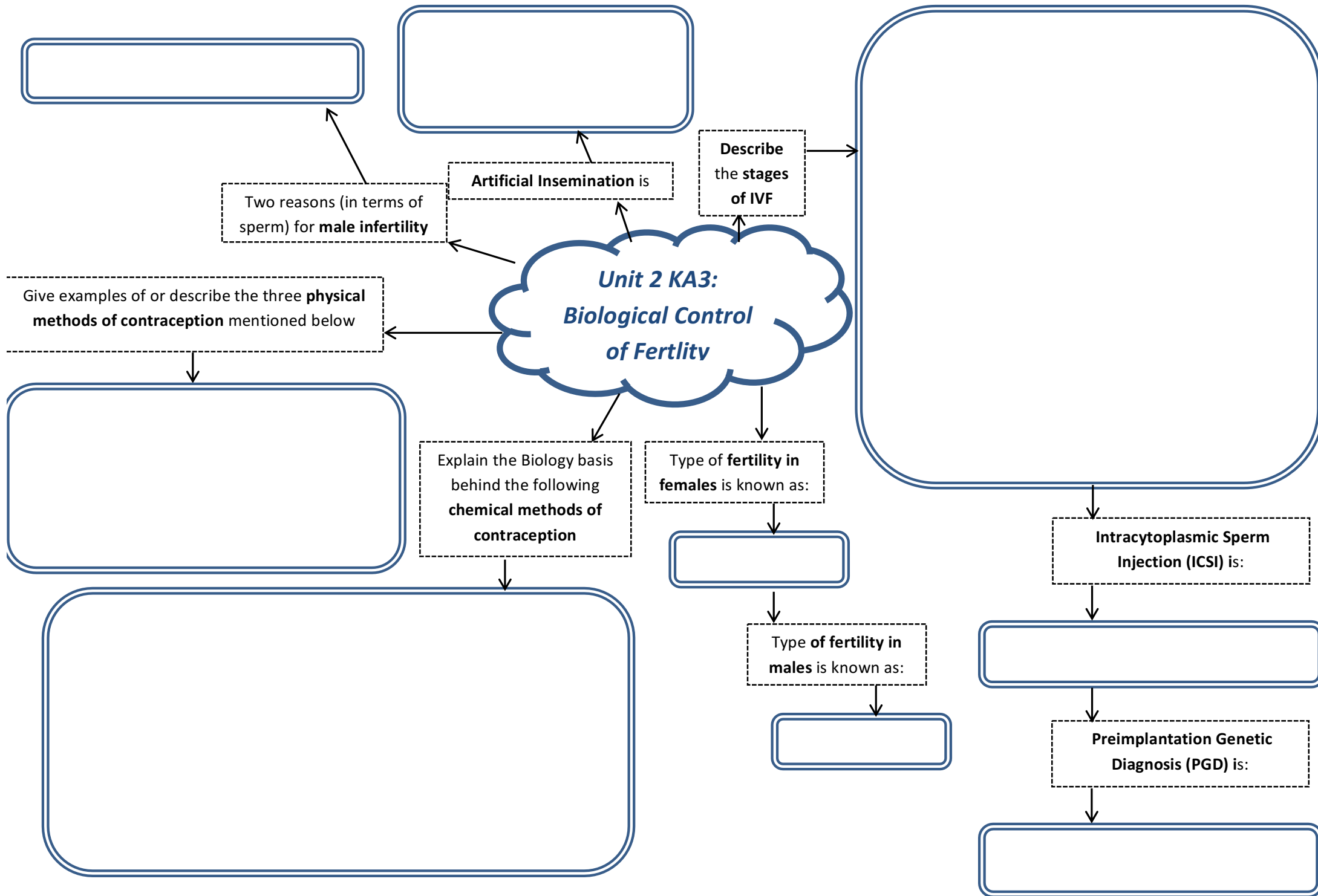
[Empty rounded rectangular box]

Name the **diploid cell**, formed as a **result of fertilisation**.

[Empty rounded rectangular box]







[Empty box]

Describe some **Biochemical Tests** carried out during pregnancy

Describe the **patterns of inheritance** and give examples of **genotypes of sufferers/non sufferers/carriers** for each example

Describe the formation of a **Karyotype** from foetal cells

Unit 2 KA4: Antenatal and Postnatal Screening

Describe the purpose of the two type of **Ultrasound**

Data Scan
Anomaly Scan

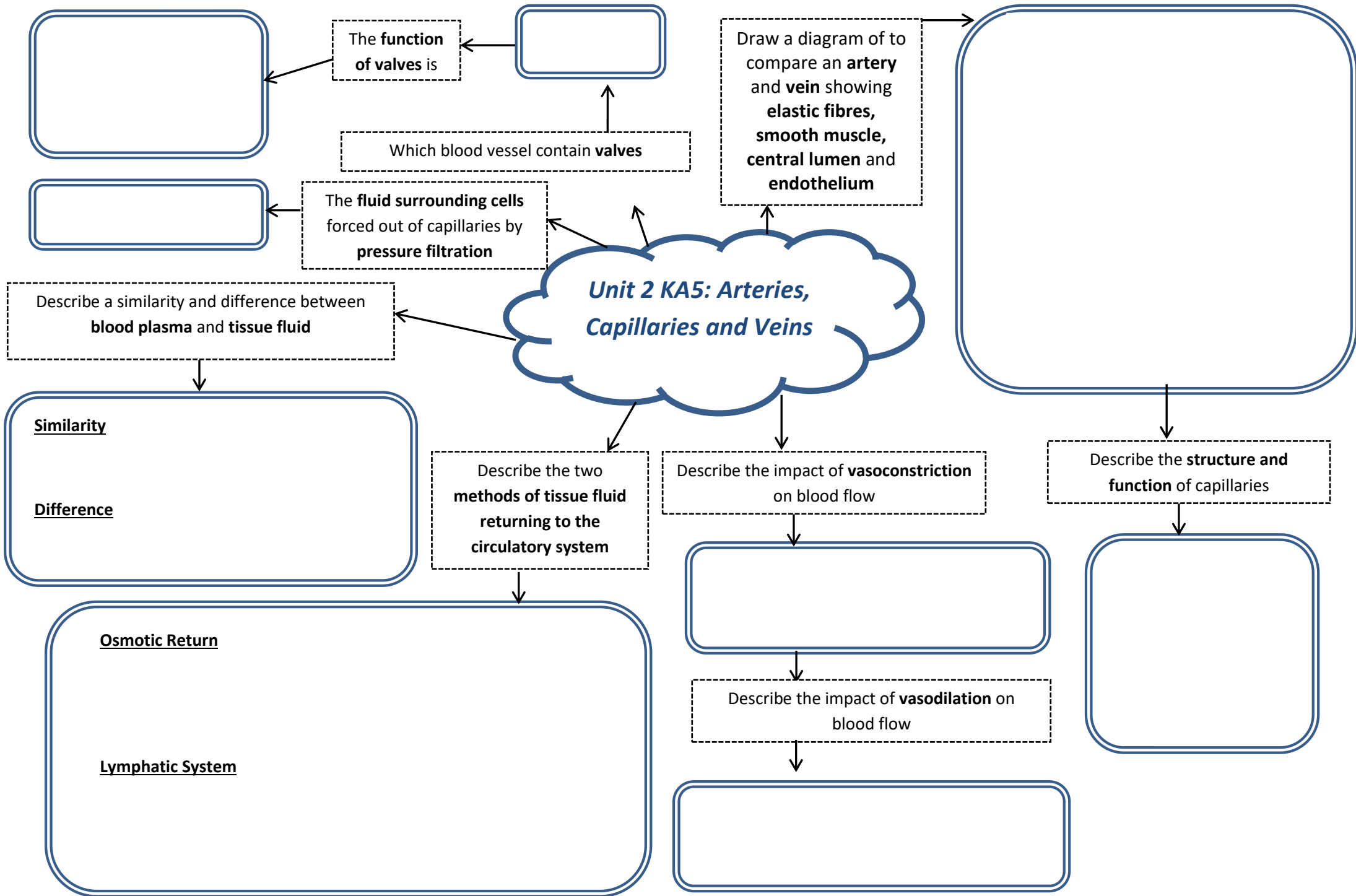
Describe the following method of **obtaining foetal cells** for a **Karyotype**. Give one advantage and one disadvantage of each.

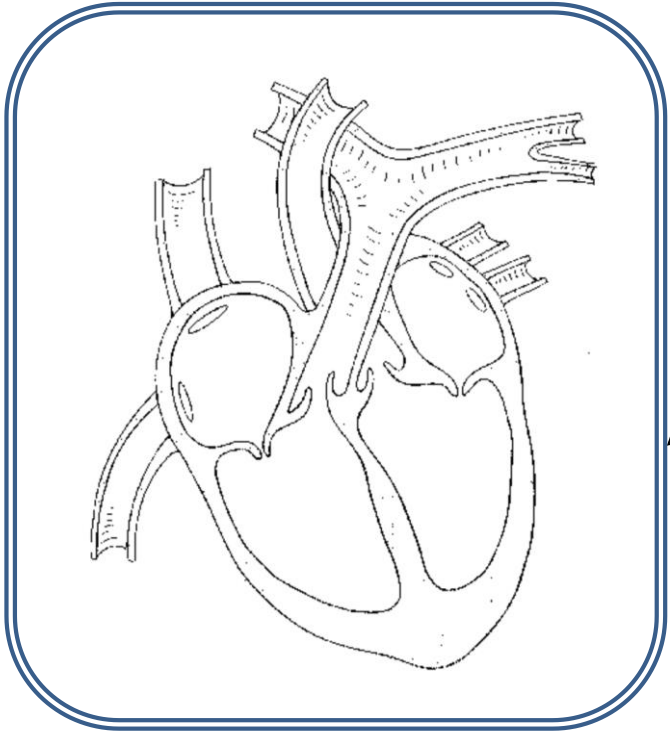
Amniocentesis
Chorionic Villus Sampling

If a baby's **blood is high in phenylalanine** what **condition** would they have and how would the individual be **treated**?

[Empty box]

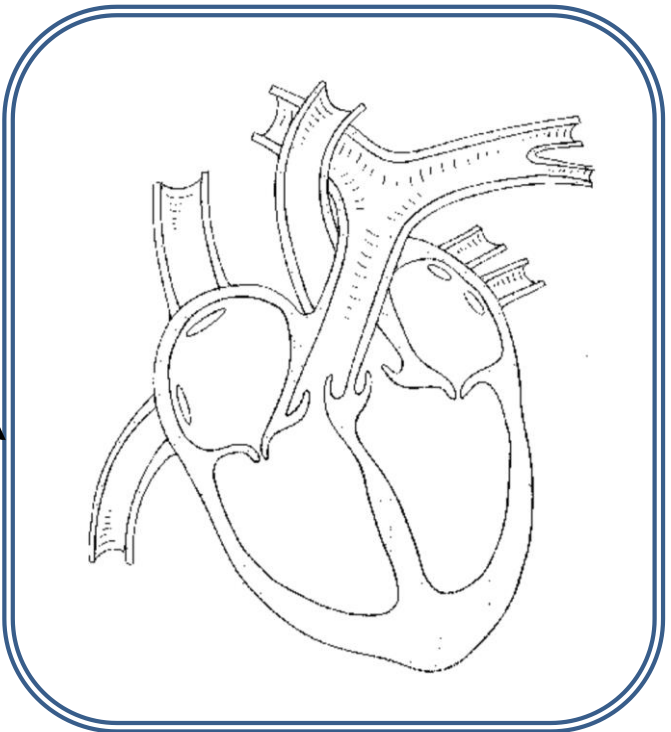
Autosomal Recessive
Autosomal Dominant
Incomplete Dominant
Sex Linked Recessive





Label the heart adding **SAN (PACEMAKER)** and **AVN**. Add arrows to show the **direction of impulses** across the heart.

Label the heart - name each **chamber**, name the **arteries/veins that flow out of/into** the heart and **heart valves**. Use coloured pencils to show the location of **deoxygenated (blue)** and **oxygenated (red) blood**.



Unit 2 KA6: Structure and Function of the Heart

- 1
- 2

Name the 2 branches of the **autonomic system**, their **impact on heart rate** and the **neurotransmitter** used.

The **autonomic system** (and so heart rate) is controlled by which part of the **brain**

The **sympathetic nerve** stimulates the **release of the hormone**

Complete the table showing the **state of the valves** during the cardiac cycle

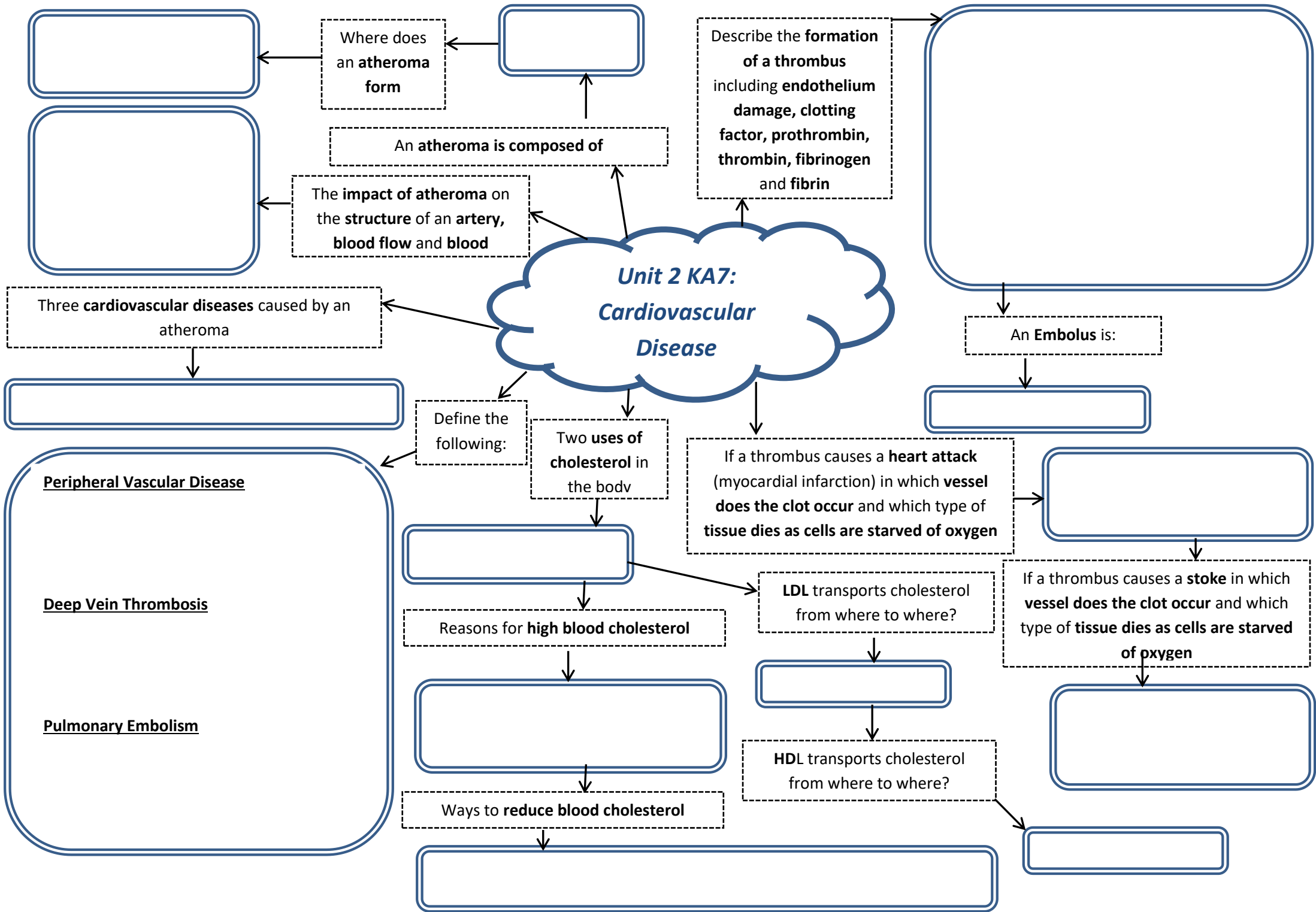
| <i>Stage of Cardiac Cycle</i> | <i>Valves Open</i> | <i>Valves Closed</i> |
|-------------------------------|--------------------|----------------------|
| Atrial systole | | |
| Ventricular systole | | |
| Diastole | | |

Give the Calculation for **Cardiac Output**

What is used to measure **blood pressure**

Hypertension can be a **risk factor** for the disease

What is the **typical blood pressure** reading for a young adult?



Unit 2 KA8: Obesity and Diabetes

1. Patient _____ before test
 2. Patient drinks a _____
 3. Patients blood _____ levels are measured

Chronic elevated blood glucose levels may lead to _____

A glucose tolerance test involves 3 stages

Complete the table about the two types of diabetes

| | Type 1 | Type 2 |
|---|--------|--------|
| Develops in | | |
| Pancreas Produces Insulin (yes / no) | | |
| No. of insulin Receptors in Liver (norm/less) | | |
| Treatment | | |

In a diabetic **high glucose** levels may also be found in _____

Pancreatic receptors respond to **high blood glucose** levels by causing **secretion** of the **hormone**

This stimulates the **conversion** of _____

Glycogen is stored in the _____

During **exercise** and **fight or flight** responses glucose levels are also raised by the **hormone**

Pancreatic receptors respond to **low blood glucose** levels by causing secretion of the **hormone**

Thus stimulates the **conversion** of _____

Describe the **causes** of obesity

Describe ways to **minimise the chances / overcome** obesity

Give the Calculation for **BMI**

BMI greater than what is classed **obese**?

Obesity is defined as a person having:

Excess _____ in relation to _____