

Josie and the Cakes

That Saturday, Josie was helping her mum in the kitchen baking cakes. Dad had taken the others out to the park. Josie enjoyed those moments when she and her mum were alone together. It made her feel more grown-up and she tried to behave like it.

“I’ll get the eggs out,” she said, and one promptly fell splat on the floor.

Her mother winced quickly, but only said: “Bad luck. Here’s some kitchen towel.”

“Beth’s mother is having another baby,” remarked Josie. “I wish we could have another one, too.”

Josie’s mother laughed. “You don’t think that this house is full enough as it is? Actually, you already have inside you all the eggs you will ever have for your own future babies. About half a million of them.”

“Half a million?” exclaimed Josie. “But they’d never fit in.”

“If they were as big as these eggs, certainly not. But there is a big difference between hens and human beings. Birds’ eggs contain all the genetic material, that’s the instructions to create a new bird, and ...”

“The DNA?” interrupted Josie.

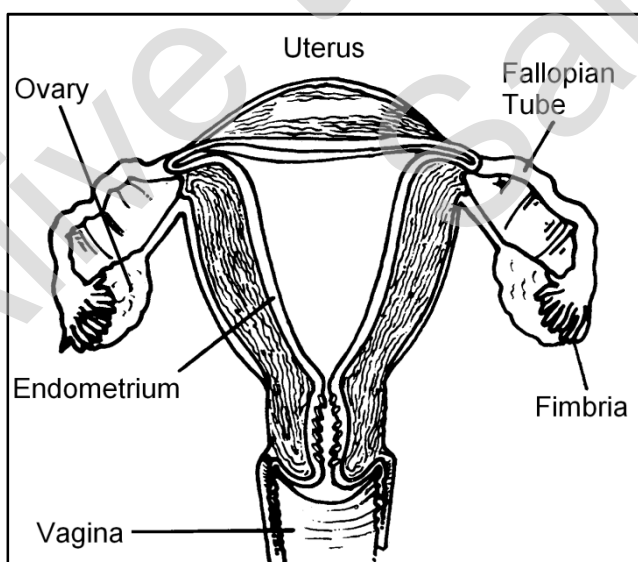


Figure 1: Uterus with tubes and ovaries

“You know a lot, don’t you? Yes, the DNA. But the bulk of a hen’s egg isn’t DNA; what we eat is the food on which a new chick relies until the moment it hatches. The hen sits on the egg to keep the chick warm, but it doesn’t give it more food. With a human mother, the egg contains only the mother’s genetic material. That’s why it can be so small, minute in fact. All the nourishment for a new baby is provided by the mother’s body, inside her womb, or uterus. Give me that paper and I’ll draw you a

diagram of what happens each month inside a woman's body. It will begin happening to you in the next couple of years or so, probably when you are 12 or 13."

Josie brought the paper and sat hunched up on a stool. The cake mixture by this time had long been forgotten. Her mum drew a curious diagram which looked a bit like a sheep's head. This she labelled as she spoke.

"All of these organs are right down inside your lower tummy. First of all, you have two ovaries, one on the left and one on the right. That is where the tiny eggs are stored. Each month, a chemical messenger is sent by the brain to choose an egg, or two if there are to be non-identical twins ..."

"Or three?" chimed in Josie.

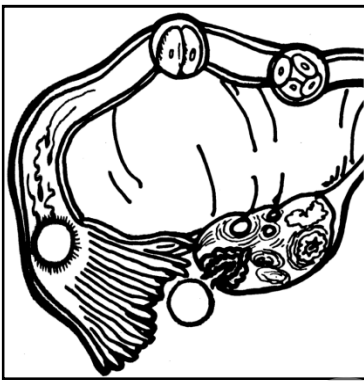


Figure 2: Fimbriae pick up egg

"Or three, but that's very rare. Anyway, an egg is chosen from either ovary in any one month, it doesn't matter which, and it grows very fast in a protective case called a follicle. The follicle grows faster than anything else in the body until it becomes the size of a walnut." Josie's mum drew again to show the enlarged follicle bursting open to release the egg out of an ovary. "The follicle itself breaks up inside the ovary while the egg is caught by the feathery fingers at the end of the fallopian tube." She pointed to what looked like a multi-fingered hand poised over an ovary and attached to the end of a

long wiggly tube.

Her mum continued: "The egg can't move anywhere by itself which is why it has to be picked up by the fimbriae. The fimbriae introduce it into the top of the tube and there within half a day or so it will die.

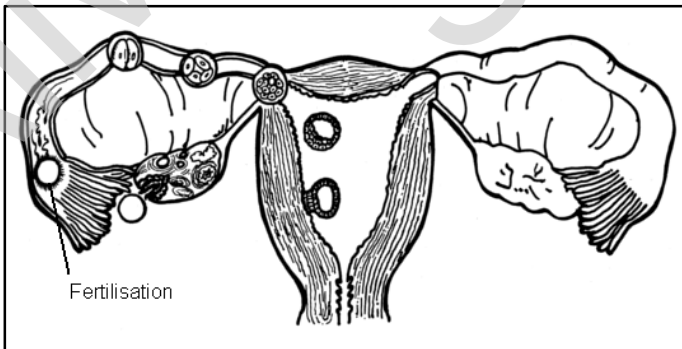


Figure 3: Fertilised egg moves to uterus

"But now I'm going to tell you what happens when the egg is fertilised." She extended her drawing to show the egg moving along the tube and bedding down in the wall of the uterus.

"How does the egg come to be fertilised, Mum?" asked Josie, looking up at her.

“Well, when a man and a woman love each other very much they embrace in a special way which releases sperm from the man into the woman. The sperm look a bit like tadpoles, but they are so small you can’t see them except under a microscope. There are lots and lots of them. Unlike eggs, they have tails and can swim fast up the woman’s body, looking for a fresh egg. If they find one, lots of sperm crowd round it. One sperm wins it and unites with it (it seems that the egg chooses that sperm ...we don’t quite know how ... from all the ones surrounding it) and the life of a new baby begins. That’s called fertilisation, or conception, and it happens here, up at the end of the tube not far from the ovary.

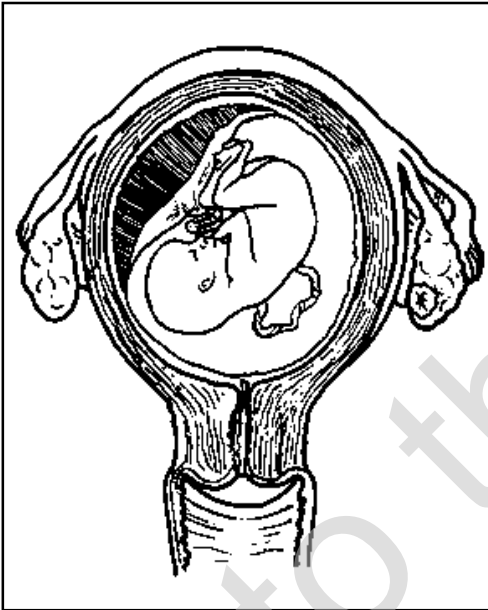


Figure 4: Unborn child at 16 weeks

“The fertilised egg is then squeezed along inside the tube all the way down to the uterus, where the new nest has been made ready. That takes about 6 – 9 days. Then it nestles down inside the wall of the uterus and attaches itself very firmly. The baby grows and grows and nine months later it is ready to be born.”

Josie was amazed. “To think all this happened to make me!”

“Yes” said her mum. “And you see why you are so unique and so loved? You were made from a piece of me (my egg, or ovum) and a piece of Daddy (his sperm) and when you think of the enormous choice of cells, both ova and sperm, from which you happened to be made –

an infinite variety – you can see how incredibly unique you are, and your brother and sister. And yet you all come from the two of us and our love for each other. Most months, of course, the egg isn’t fertilised.”

“So what happens to all those eggs that don’t make it?” asked Josie.

“Well, most of those half million never actually mature at all. And the ones that do die inside the tube within 12, or at most 24, hours after being released.”

“It’s amazing, isn’t it?” said Josie. “Those eggs live inside me all those years, then a lucky one is picked out of the ovary, and it goes and dies twelve hours later.”

“I hadn’t thought of it like that,” her mother replied. “But yes, except for the really lucky eggs which live to become babies, you are right. The woman’s body does weep in a way at the death of each egg because, some 11–14 days afterwards, the womb

discards its nest, which comes away in the form of drops of blood. It comes away very gently, a drip or sometimes a clot at a time, lasting about 4 or 7 days, though it varies with each woman. The uterus is actually made of very strong muscle, and to make the lining come away it squeezes itself.”

“Can you feel it?” asked Josie

“It can cause a dull ache, or even quite a strong pain in the first day or two. Each woman is different, but it is nothing to be frightened of.”

“Where does the blood actually come out?” asked Josie.

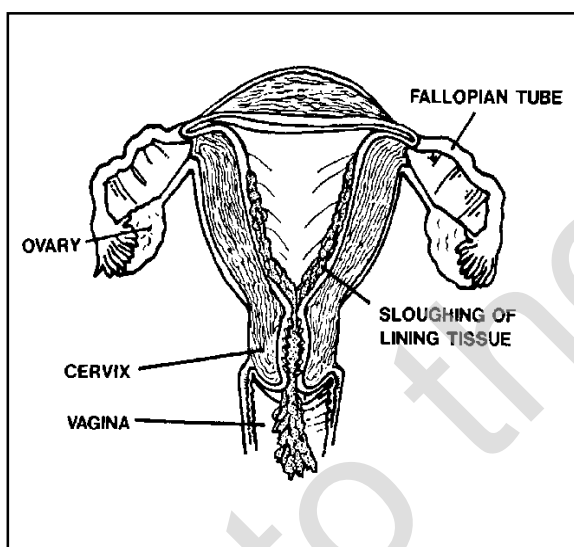


Figure 5: Lining of the uterus is shed during a period

“It drains down from the uterus through the cervix, which is the opening to the womb. It acts like a valve, only letting in and out what it wants to so that the womb is protected from germs. Then it goes through the vagina, which is the tube which connects the uterus to the outside of the body. Your bottom actually has three outlets: one for spending pennies, one for spending tuppence, and the third, which is between them, is the opening of the vagina. That’s where the blood comes out. It’s also where the husband’s penis goes in during intercourse, which is the very special

closeness I talked about.”

Josie looked a bit uncomfortable. “That is what they call ‘making love’, right? Doesn’t that hurt, Mum?”

Her mother smiled at her. “No, because the body is very clever and is made for this. When a man and woman love each other and have given themselves totally to each other, intercourse is like a very special cuddle and each of their bodies gets ready for the other. This is why it is important to be totally in love and committed to each other. Because if a man forces himself on a woman, or she is afraid, then, yes it can hurt. That is one reason why rape is a terrible crime. Your vagina and cervix will go on growing and developing until you’re aged about 19, so before that a girl does not have the full enjoyment of sex. Premature sex is not the same as the real thing.

“As I said when you bleed, or have a period as we call it, the blood drips out quite slowly, though it can be heavier for some women. There are special pads you wear inside your knickers and you just change them when you go to the toilet. They’re made out of material a bit like disposable nappies and are very absorbent.”

At that minute, they were distracted by footsteps outside, and the sound of very familiar voices.

“Quick, Josie! We haven’t put those cakes in the oven yet.”

“Never mind, Mummy. We have been discussing all sorts of things about eggs. And there are doughnuts in the cupboard.”

Diagrams with amended captions taken from *Reproductive Anatomy and Physiology for the Natural Family Planning Practitioner*, Thomas W. Hilgers, m.d. (Creighton University), 1981 with kind permission of the author.