



## **Main anatomical positions of the uterus and possible difficulties for conception: a literature review**

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### **1 INTRODUCTION**

The uterus is one of the most dynamic organs in the human body. It is usually positioned in anteflexion and anteversion, that is, inclined anteriorly and superiorly in relation to the major axis of the vagina. The position and direction of the uterus depend on the stability of the supporting perineal elements, muscles, and aponeuroses of the perineum, and on the preservation or diminution of the normal uterovaginal angle. Thus, changes in the uterine position can affect the position of the cervix in relation to the semen, which can make it difficult for sperm to pass towards the fallopian tubes, where fertilization occurs.

### **2 OBJECTIVE**

To describe the main anatomical variations of the position of the uterus.

### **3 METHODOLOGY**

This is a literature review, conducted in October 2023, with articles published in the National Library of Medicine (PUBMED) and SciElo databases, using the Health Sciences Descriptors (DECs): "anatomical variation", "uterus" and "pregnancy". The Boolean operator AND was used to bind the terms. Only articles published in full in the last 5 years in Portuguese and English and available free of charge were selected. Theses, dissertations, reviews, case reports, letters to the editor, and incomplete texts were excluded. The titles and abstracts of the studies found were initially read, and those that met the objective of this study were selected for full reading.



#### **4 RESULTS**

The human uterus may present 4 main anatomical variations regarding its position in the pelvis: anteflexion, which is the normal position of the uterus, in which it presents an anterior curvature, in which the uterine body is flexed anteriorly in relation to the uterine cervix; retroflexion, where the uterus presents a posterior curvature, in which the body of the uterus is flexed posteriorly in relation to the cervix; anteversion, the position of the uterus in which anterior flexion occurs in relation to the vagina; and in the retroversion position, the uterus is flexed posteriorly in relation to the vagina. Women seeking to become pregnant may face greater difficulties in conception with the uterus in retroversion or retroflexion. In these cases, the position of the uterus can affect the position of the cervix in relation to the semen ejaculated during intercourse, which can make it difficult for sperm to pass towards the fallopian tubes, where fertilization occurs.

#### **5 CONCLUSION**

Variations in the cervical position may or may not interfere with conception. Thus, specialized medical follow-up is essential, in addition to complementary and imaging tests, such as ultrasound.

**Key words:** Anatomy. Uterus. Anatomical variation.

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