不育 —— 是什麼問題？

懷孕是一個複雜的過程，在每月的周期中，不能懷孕的可能性其實高於懷孕的可能性。

即使對生育能力正常、經常進行性行為達每星期2至3次，而又不避孕的夫婦而言，妻子在一次月經周期內懷孕的機會率亦不超過百份之二十五。

我們怎樣才知自己是否不育？

若一對夫婦在12個月內有正常的性行為而又沒有避孕，妻子仍未能懷孕的話，則這對夫婦就會被診斷為不育。

已過了一年？

從統計學的觀點來說，八成至九成有正常生育能力的夫婦會在一年內懷孕。雖然其餘的夫婦可能最終能夠成功懷孕，但其實大部份在一年內都不能成功受孕的夫婦，都會被診斷出有身體上的毛病，致使他們不能順利懷孕。

換言之，但從統計學的角度來看，這些夫婦懷孕的機會正在下降。從速向醫生求診十分重要，因為愈早因應問題接受診查，治療的成功機會愈大。

有下列情況的夫婦應考慮及早接受診治：

- 女性超過35歲
- 流產3次或以上
- 月經周期長而不穩定
- 月經周期為3星期或以下
- 經期有腹痛或進行性行為時有痛楚
- 曾患子宮內膜異位
- 曾患盆腔感染
- 曾接受盆腔或卵巢手術
- 男性童年時曾患流行性腮腺炎
- 有勃起或射精困難
- 曾患前列腺感染

不育是常見抑或罕有現象？

不育是常見的情況，每6對夫婦中便有1對不育。不育比率隨女性年齡而上升，年近40歲的婦女尤甚。

較頻密的行房有助增加懷孕的機會嗎？

行房過密，例如每晚進行性交，只會令精液中精蟲的數目減低反之，若行房太疏，例如一個月一次，精液中精蟲的活躍程度則會大大降低。兩種情況均減低懷孕的機會。若行房在排卵期間進行，則可增加懷孕的機會。(可參閱「不育需進行甚麼檢驗？」單張)
不育——是什麼問題？

不育的原因並非僅出現於妻子身上。女性不育約佔不育個案四成；在另外三成的個案中，問題其實來自男性；至於其餘的個案，則屬雙方共同的問題或成因不明（成因不明的不育）。因此，夫妻雙方在評估過程中均應參與。

若不育是由特定問題引致，愈早發現，便可愈早開始接受治療，讓你和伴侶一起向目標邁進。

治療的成功機會隨女性的年齡增加而下降。即使採用先進的協助生殖科技，45歲以上女性的成功率亦近乎零。

及早向醫療專業人員求助，切勿延誤！
不育——
成因為何？
是女方的問題？
還是男方的問題？

女方可能出現的問題

排卵障礙 （每5對不育夫婦中有1對）
她不能生產正常和成熟的卵子。原因可能是壓力、體重劇升或劇降，經常進行過度劇烈的運動，及內分泌疾病。

輸卵管受損 （每5對不育夫婦中有1對）
輸卵管是精子與卵子會合、新生命開始孕育的所在器官。輸卵管可能因以下情況而受損：曾經受到感染、患有子宮內膜異位、曾患過盆腔或受過盆腔手術等。很多時，即使她曾經患有盆腔發炎亦可能完全沒有症狀，直至詳細檢查時才得知自己曾患此病。

子宮內膜異位 （每5至15對不育夫婦中有1對）
指子宮內膜組織在子宮內壁表面的正常襟膜以外部位生長。這種情況可能導致盆腔器官之間出現黏連。雖然她可能在行經期間或進行性行為時感到疼痛，但亦可以全無不適。

宮頸黏液毛病 （每25對不育夫婦中有1對）
在排卵期間，她的子宮頸會分泌大量稀薄的黏液。不過，這些黏液可能含有抑制精子的抗菌，令到精子難以進入宮腔。

男性可能出現的問題

精子不健全／功能障礙 （每4對不育夫婦中有1對）
即使生育能力正常的男士亦有很多精子的型態有缺陷又或者活動能力不足；不過，最少仍有三分之一的精子型態正常，並有超過半數可自由活動。

影響男性生育能力的常見問題，是所產生的正常並可自由活動的精子不足。有時，精子功能異常，即使可游向卵子，亦無法穿入卵子，因而新生命無法形成。

為何他不能製造足夠數量的健康精蟲？
童年時曾患流行性腮腺炎，或其睾丸靜脈曲張、睾丸未降、激素分泌紊亂，或由於壓力、吸煙、環境因素、和遺傳因素等等的影響，均可能導致他的精子質素欠佳。

精子輸送轉移障礙 （每25對不育夫婦中有1對）
精子在他的睾丸中產生，然後經輸精管輸送到陰莖。若輸精管由於曾受感染或曾接受絕育手術、或先天性發育不良的話，性交高潮時射進她體內的精液便缺乏精蟲。

女性生殖道畸形 （每100對不育夫婦中有1對）
先天性子宮畸形，會令胚胎植入受影響。就外觀而言，她與一般女性無異；其結構異常情況只可從盆腔檢查中才可得知。
其他原因

性交失敗（每15對不育夫婦中有1對）
在性交中，他可能不舉或無法射精，她則可能出現陰道痠痛。這些情況大多由於心理問題所致。

原因不明（每4對不育夫婦中有1對）
若詳細的病歷及檢查，再加上全面的檢驗，均無法找出引致他們不育的明確解釋，就謂之「原因不明的不育」。

若果找不出原因去作治療，是否等於永遠無法懷孕？

對於「原因不明的不育」，不育的年期及女方的年齡是決定她懷孕機會的主要因素。一般而言，女方若年紀不大，即使不接受治療，在三年內，她們當中亦有六成人可以自然受孕。不過，若超過3年後仍未能受孕，自然的受孕率便會大幅度降至每年少於一成機會。女方年紀愈大，懷孕的機會便愈低。
不育 需進行甚麼檢驗？

醫生會為不育夫婦進行不同的檢驗，去嘗試找出導致不育的原因，以便作出適當治療。醫生會嘗試找出最少4個基本問題的答案：

● 行房是否有困難？
● 他的精子是否有問題？
● 她排卵是否有問題？
● 她的生殖道是否有問題？

行房是否有困難？
若在任何情況下均不能進行陰道內射精，則表示行房有困難。泌尿科醫生，婦科醫生或性治療師可幫助這些夫婦重拾正常的性生活。

他的精子是否有問題？

要評定他的生育能力，除了詳細查看他的病歷和進行身體檢查，最重要的工作是進行精液分析。

精液分析可得知精子是否活躍，數量是否足夠。導致精液分析結果異常的最常見原因，是收集精液樣本的方法不當，又或他最近曾經生病，以致影響製造精子的能力。因此，最少要有兩個在不同時間收集的精液樣本（採樣本時間最少相差3個月）均為不正常，才可斷定他有不育問題。

其他適用於男方的檢查
在某些情況下，或須作進一步檢查，例如進行抑制精子抗體測試、精液功能測試、激素測試、精液微生物検定，以及男性生殖道造影。不過，這些測試必須在專科的不育治療中心進行。

她排卵是否有問題？

若果她的經期不規則或沒有來經，可能是因為排卵有問題。雖然定期行經的女性通常都有排卵，但並非一概而論，因此要斷定排卵情況，便須進行若干特定測試。

體溫探測法
其中一種方法是每天早上醒來後立即採取口腔溫度，將月經周期中每天的溫度變化記錄下來，並註明曾經發生的重要事情，例如性交或患病等。

若月經周期中段溫度上升大約半度，而情況持續數天，即表示排卵正常。

尿液檢驗排卵工具
近年出現了可檢查排卵狀況的尿液化驗工具，有助夫婦安排在排卵期的日子行房，提高受孕的機會。

其他檢驗排卵的測試
在某些情況下，或須作進一步測試，但這些複雜的測試必須在專科的不育治療中心進行。
她的生殖道是否有問題？

超聲波掃描
方法是把探管置於腹部上面或插入陰道內進行超聲波掃描。這是一項無痛檢查，可檢驗子宮或卵巢是否有異常情況。

子宮輸卵管造影術
方法是在女方的生殖道注入染劑，然後藉X光照片診斷是否有輸卵管閉塞或子宮結構異常的情況。這項檢查毋須施行手術或進行麻醉，但由於不能提供有關腹膜疾病的資料（例如子宮內膜異位或盆腔內黏連等），因此一般只用來為低風險的婦女檢查。

腹腔鏡檢查及染劑檢查
這項檢查須全身麻醉。醫生可藉此直接檢視子宮外層、盆腔、輸卵管及卵巢，並在同一時間診斷病人是否患有子宮內膜異位、盆腔內黏連、輸卵管閉塞及卵巢疾病等。因此，若醫生懷疑病人很可能患有腹膜疾病，多會進行這項檢查。進行腹腔鏡期間，亦可同時施行不育治療手術。

子宮鏡檢查
子宮鏡檢查通常與腹腔鏡檢查同時進行。把一支內窺鏡由陰道放進子宮內，可檢視子宮內壁，從而得知是否出現子宮內黏連或先天性子宮結構異常等情況。

何處可為不育夫婦進行這些檢查？

醫管局醫院的婦科醫生及私家婦科醫生均可為不育夫婦提供大部分上述的檢查。
不育治療知多少？

不育不等於沒有生育能力。大部分尋求醫療協助的不育夫婦，經過治療後都能夠生兒育女。總括來說，治療不育的效果一般令人滿意。約有 65% 接受不育治療的夫婦最後都能夠生兒育女。

一般建議

- 開始接受治療前，夫婦均應避免吸煙。
- 身體明顯過重或過輕的婦女或會難以懷孕，所以應該努力保持適中體重。
- 適當的飲食和運動，對促進生育功能有很大幫助。
- 報廢懷孕的婦女若發現體內沒有德國麻疹抗體，便應該接受德國麻疹疫苗的注射。

藥物治療

對於排卵有問題的婦女，可使用激素刺激卵子使其成熟和釋出，達到誘導排卵的目的。不過，通常多於一粒成熟的卵子會被釋放出來，引致多胎懷孕。

手術治療

輸卵管受損及子宮內膜異位的婦女可進行手術做出矯正。若無法施行手術或手術失敗，則可試嘗試外受精。

輔助生殖科技

子宮內精液注射

在實驗室內利用丈夫提供的精液樣本，製備出濃度更高並含有具活力能力及正常型態的精子的精液樣本。配合上文所述的激貳刺激排卵，將預備好的精液樣本注入妻子的子宮內；這程序毋須進行麻醉。

這簡單的療程只適合於有行房困難或男性精液有輕微問題，或成因不明的不育夫婦。

體外受精

體外受精一般稱為「試管嬰兒」，通常適用於輸卵管受損或有嚴重子宮內膜異位的婦女。方法是從丈夫及太太身上分別取出精子及卵子，在實驗室中配植。當胚胎形成後，便放回子宮內。若結合卵胞漿內單精子注射，則可同時治療嚴重的男性不育問題。目前並無證據顯示「試管嬰兒」有較大機會出現先天性異常的情況。

卵胞漿內單精子注射

方法是在實驗室內將單一精子直接注射進卵子之中。對於因為正常精子大幅減少或輸精管受損以致不育的個案來說，這個程序可大大提高成功受精的比率。

輸卵管內配子移植

方法類似試管嬰兒，分別在於輸卵管內配子移植是在手術室內將卵子和精子同時注入輸卵管內，使胚胎在人體內——而非如試管嬰兒般在實驗室內形成。
如何取得協助 ...

婦科醫生可為不育夫婦進行基本的評估和治療。不過，若無法找出導致不育的原因，或在接受一定時間的治療後仍未能夠成功懷孕，則可轉介至專門處理不育個案的專科醫生，以及公營或私家醫院轄下的輔助生育組。這些婦科醫生專長於顯微手術、誘導排卵及輔助生殖科技等方面的技術。

設有不育治療中心的公營機構：
- 威爾斯親王醫院
- 瑪麗醫院
- 廣華醫院

其他方案

若各種治療方法都不成功，或當對不育夫婦不適宜接受治療，可考慮放棄生育或領養子女。怎樣選擇依屬個人決定，而不育夫婦需準備接受不同選擇可能帶來的不同後果。

放棄生育

夫婦二人可以發展個人興趣，與配偶培養共同興趣，同時擴闊社交生活圈子，鞏固與家人和朋友的關係。

社會福利署的領養中心

若夫婦二人均身心健康，願意對領養孩子作出終身承擔、肩負養兒育女的責任，便可申請領養孩子。詳情可向社會福利署領養課查詢。

香港統一碼頭道38號海港政府大樓4樓
電話：2852 3107
INFERTILITY
What does it mean?

Becoming pregnant is such a complex process that there is a much greater probability of not becoming pregnant during a monthly cycle than of becoming pregnant.

Even for fertile couple having regular unprotected intercourse, i.e. two or three times a week without any form of birth control, the chance of becoming pregnant within one menstrual cycle is not more than 25%.

How can we know we are infertile?

When the couples have regular sexual activity without any contraception for 12 months, and yet the wife is unable to get pregnant, the couples are diagnosed as infertile.

Is it a common problem or a rare problem?

Infertility is a common condition, affecting 1 in every 6 couples. The infertility rate increases with female age particularly in women at their late thirties.

Can more frequent sexual intercourse help to increase chance of pregnancy?

Too frequent sexual intercourse, say every night, will only lead to decrease in the number of sperms in the semen. On the other hand, too infrequent sexual intercourse, say once every month, will lead to immotile sperm in semen. Both conditions decrease the chance of pregnancy. If sexual intercourse is carried out during ovulation period, the chance of pregnancy can be increased. (Please refer to leaflet "Infertility – Which tests are necessary?")

A year has gone by....

Based on statistical observation, 80-90 out of 100 couples will normally conceive by this time. Although some couples will be conceived in a later time, most of these couples in this group have specific problem.

That means, after 1 year of normal sex life without contraception, from a statistical point of view, the chance of pregnancy is decreasing.

It is important to seek help quickly, because the earlier the problem is investigated, the better the chance for successful treatment.

Those couples with the followings should consider earlier medical consultation if:

- Female age at late thirties
- Three or more miscarriages
- Long and irregular menstrual cycle
- Menstrual cycle at three week or less intervals
- Pain during menstruation or sexual intercourse
- A history of endometriosis
- A history of pelvic infection
- A history of pelvic or ovarian operation
- Men who have had mumps in childhood
- Erectile or ejaculatory problem
- A history of prostate infection
The responsibility of both partners

Infertility problems do not just occur in women. Female infertility accounts for about 40% of cases. But in another 30% of cases, the problems actually come from the man. For the remaining, it is either a joint problem or the cause is unknown (unexplained infertility). So both couples should be involved during the process of evaluation.

If a specific problem is causing infertility, the sooner it is identified, the sooner you can begin treatment to bring you and your partner closer to achieving your goal.

Treatment success rate decreases with increasing female age. Even with the use of advanced assisted reproductive technologies, the success rate for women aged over 45 is more or less equal to ZERO.

Do not delay seeking professional help!
INFERTILITY

Why does it happen?

Her problem? Or His problem?

What could be her problem?

Disturbance in ovulation (1 in 5 infertile couples)
She may have problem in producing normal and mature egg. This can be caused by hormonal imbalance due to stress, excessive overweight, excessive weight loss, extreme physical exertion, or some types of endocrine disorders.

Tubal damage (1 in 5 infertile couples)
Fallopian tube is the organ where the sperm meets the egg, and a new life started. The tube can be damaged due to infection, endometriosis, previous ectopic pregnancy or previous pelvic operation. Sometimes pelvis infection is silent and she may not aware of its existence at all until investigation is performed.

Endometriosis (1 in 5-15 infertile couples)
This means growth of endometrial tissue outside the normal lining of the inner womb. It may cause adhesions between the pelvic organs. She may feel pain during menstruation or sexual intercourse, or she may feel nothing abnormal.

Mucus defects (1 in 25 infertile couples)
Around the time of ovulation, her cervix will produce thin mucus in abundant amount. However, if her cervical mucus contains antibodies against his sperms, the sperms will be difficult to enter the womb.

Malformation of female genital tract (1 in 100 infertile couples)
Embryo implantation may be affected if there is uterine malformation. It is a developmental abnormality and she is born with this malformation. Externally, she looks normal. The abnormality can only be identified by pelvic examination and investigations.

What could be his problem?

Sperm defects/ dysfunction (1 in 4 infertile couples)
Even if he is fertile, most of his sperms are imperfect and many cannot swim properly, but at least one-third of the sperms should be normally formed and half of the sperms are freely mobile.

The most frequent problem resulting in male fertility is insufficient production of normal and freely mobile sperms. Sometimes, the motile sperm is functionally abnormal that even if it could swim towards the egg, it cannot penetrate into the egg and therefore fails to start a new life.

Why can't he produce sufficient number of healthy sperms?
Mumps infection in childhood, varicose vein in his testicles, undescended testes hormonal disturbances, stress, smoking, environmental factors, and hereditary factors may lead to poor sperm quality.

Disturbances of sperm transport (1 in 25 infertile couples)
Sperm is produced in the testes and then transported to the penis via the vas deferens. If his vas deferens is blocked due to previous sterilization, infection, or underdevelopment, no sperm could be found in his ejaculate.
Other factors

**Coital failure (1 in 15 infertile couples)**
During sexual intercourse, he may have erection or ejaculation failure and she may have spasm of vagina. Most of the cases are due to psychological problem.

**Unexplained (1 in 4 infertile couples)**
If a detailed history and examination followed by complete investigation still fail to elicit a clear-cut explanation, this is called 'unexplained infertility'.

"If a cause for infertility cannot be found, does it mean that they have no chance to get pregnant?"

In unexplained infertility, two main factors determining the chance of pregnancy are the duration of infertility and the women's age. In young women with unexplained infertility, it is observed that 6 out of 10 may spontaneously conceive in 3 years. After then, the chance of pregnancy drops significantly to less than 10% per year. The prognosis is getting worse in older women.
INFERTILITY
— Which tests are necessary?

The doctor will perform different tests for the couples and try to identify the cause for infertility so it may be appropriately treated. Doctor will try to answer at least four basic questions:

- Is there any coital difficulty?
- Is there a problem with his sperm?
- Is there a problem with her ovulation?
- Is there a problem with her genital tract?

Is there any coital difficulties?

If he cannot ejaculate in her vagina, then they are having problem in sexual intercourse. Urologist, gynaecologist or sex therapist may help them to resume normal sex life.

Is there a problem with his sperm?

Besides detailed medical history and examination, semen analysis is the single most important test in evaluation of his fertility. It can tell whether he is producing adequate number of healthy sperms.

The most common reason for abnormal semen analysis is improper specimen collection, or history of recent illness that may affect the production of sperm. Therefore, at least two abnormal samples collected in separate occasions at least 3 months apart are necessary to say he has a problem.

Other tests for him:

In some cases, further investigations such as anti-sperm antibody, sperm function tests, hormonal tests, microbiological assessment of the semen and imaging of the male genital tract may be necessary. However, this should be initiated in the specialist infertility centre.

Is there a problem with her ovulation?

If she has irregular or absent periods, she may have problem in ovulation. Although regular menstrual cycle usually implies normal ovulation, it isn’t always true. Some specific tests may be required to determine the ovulatory status.

Basal Body Temperature Chart

Every morning, she has to take oral temperature once she wakes up, plots its daily changes throughout the cycle and notes for events of importance, such as sexual intercourse or illness.

A rise in temperature of about half degree around mid-cycle maintaining for few days is suggestive for ovulation.

Urinary Ovulatory Kit

In recent years, urinary testing kits have been available to detect ovulation. It may be helpful in planning sexual intercourse around ovulatory period to increase the chance of pregnancy.

Other tests to detect ovulation:

In some cases, more complicated investigations may be necessary, however, this should be initiated in the specialist infertility centre.
Is there a problem with her genital tract?

**Ultrasound scan**
This is a painless test to be performed by applying a probe over the abdomen, or by inserting a probe into the vagina. It can detect abnormalities of the uterus or the ovaries.

**Hysterosalpingogram (HSG)**
Blockage of the fallopian tubes and structural abnormality of the uterus may be diagnosed through X-ray examination after injecting dye into her genital tract. This test needs no operation or anaesthesia. Yet, it provides no information on peritoneal diseases such as endometriosis or pelvic adhesion. Therefore, it is only suggestive to women with lower chance of tubal problem.

**Laparoscopy and dye studies**
This is performed under general anaesthesia and enables the doctor to directly view the outside of uterus; pelvic cavity; fallopian tubes and ovaries. It can identify endometriosis, pelvic adhesion, tubal blockage and ovarian diseases at the same time. Therefore, it is the preferred work-up when there is a strong suspicion of peritoneal disease. Laparoscopy may also be necessary when planning for infertility surgery.

**Hysteroscopy**
This is usually performed at the same time with laparoscopy. A probe is inserted into the uterus through vagina. The inner lining of the uterus can be seen. Abnormalities such as intrauterine adhesion or congenital uterine abnormality can be detected.

Where can the couples to get these tests?

Gynaecologists both in Hospital Authority and private sectors offer most of these tests to infertile couples.
INFERTILITY

What types of treatment are available?

Remember that infertility is not the same thing as sterile. Most infertile couples who seek medical help eventually succeed in having children. Overall, treatment for infertility is quite promising. About 65% of all couples treated for infertility will eventually have their own baby.

**General Measures**

- Smoking should be avoided in both couples before initiation of treatment.
- Women who are significantly overweight or underweight have difficulty to get pregnant, therefore they should try their best to keep a normal body weight.
- Proper diet and exercise are important for optimal reproductive function.
- Women planning for pregnancy, and being found to have no antibody for rubella should have rubella vaccination.

**Medical treatment**

For women with ovulatory problem, ovulation induction can be achieved by using hormone to stimulate maturation and release of egg. However, more than one mature egg would be released resulting in multiple pregnancies.

**Surgical treatment**

For women with tubal damage or endometriosis, surgery can be performed to repair the damage. In cases where surgical correction cannot be performed or failed, in-vitro fertilization should be attempted.

**Assisted Conception Methods**

**Intrauterine insemination of husband semen (IUI)**

Semen sample collected from the husband is processed in the laboratory, and a more concentrated sample with selected motile and normal sperm is prepared. Matching with hormonal stimulated ovulation as described above, this semen sample is injected into the wife’s womb. This procedure needs no anaesthesia.

This simple treatment is only suitable for couples with coital problem, borderline male problem and unexplained infertility.

**In-vitro Fertilization (IVF)**

In general, people refer it as ‘test tube baby’. It is usually recommended for women with tubal damage or severe endometriosis. Sperms and eggs are retrieved from husband and wife and then let them fertilized in the laboratory. The growing embryo will be put back into the womb. Together with intracytoplasmic sperm injection, it can treat couples with severe male problem.

There is no evidence that “test tube babies” have higher chance of congenital abnormalities.

**Intracytoplasmic sperm injection (ICSI)**

In the laboratory, a single sperm is injected directly into the egg. This procedure can improve fertilization rate in male infertility associated with absence sperm or significant reduction of normal motile sperm in semen.

**Gamete intrafallopian transfer (GIFT)**

Similar to test tube baby, except that eggs and sperms are injected simultaneously into the fallopian tube in the operating theatre. Fertilization takes place within the body, not in the laboratory as mentioned in test-tube baby.
Where to get help....
The basic infertility evaluation and treatment can be accomplished by the gynaecologists. However, if there is no identifiable cause for infertility or if the couple do not conceive after medical or surgical treatment within a given time, they may be referred to a subspecialist in infertility or Assisted Reproductive Unit of public or private hospitals. They are gynaecologists who have expertise in areas such as microsurgery, ovulation induction and assisted reproductive technologies.

Infertility centres in public sector:
- Prince of Wales
- Queen Mary Hospital
- Kwong Wah Hospital

Alternate options
If all treatments have failed or the couples are not suitable for treatment, they should try to make a decision whether to accept to be childless, or consider adoption. They are in charge of the situation, and they should be prepared to accept the possible consequences of different options.

Coming to terms with childlessness
The couples can explore their own personal interests, common interests with the spouse, to expand their social circles and to strengthen their relationships with other family members and friends.

Adoption centre in Social Welfare Department:
If the couples are mentally and physically healthy, ready to make a life-long commitment to adopt a child and to take up parental responsibilities, they may apply for adoption. Further information can be obtained through adoption unit in Social Welfare Department.

Telephone number: 2852 3107
Address: 4/f Harbour Building, 38 Pier Road, Hong Kong.