

### INSTRUCTIONS FOR USE Sperm Home Test Kit by ExSeed Health

## INSTRUCTIONS FOR USE Congratulations on your ExSeed device!

#### **About ExSeed**

ExSeed Home Sperm Test Kit is a self-test IVD Medical Device. The system consists of a self-test kit that includes:

- **1. ExSeed analysis device**
- 2. Collection cup and lid
- 3. Sample slides
- 4. Wipes
- **5. Instructions for Use**



### What is ExSeed used for?

ExSeed is a smartphone-based self-test for assessment of:

- Semen Volume (ml).
- Sperm Concentration (Million/ml).
- Sperm Motility (%).
- Total Motile Sperm Count (Million).

ExSeed enables a user to estimate the quality of a sperm sample. It also enables the user to monitor and track changes over time.

ExSeed does not provide a comprehensive evaluation of fertility status and is intended

for over-the-counter, in vitro use only.

For a complete assessment of male reproductive health, the user should consult a medical professional.

Disclaimer: Always seek the advice of a qualified medical professional before making any changes to your lifestyle, as doing so may cause harm.

### THE EXSEED SYSTEM

## How does the ExSeed system work?

The product works in the following way:

The user downloads the App and follows the guide for taking a semen analysis test. A semen sample is collected in the collection cup and left to liquefy for 20 minutes. A part of the sample is transferred to the sample slide with the pipette incorporated in the lid of the collection cup. Residual liquid is removed with the wipe and the sample slide is inserted into the ExSeed analysis device where by a light in the device automatically turns on. The smarphone is then placed on top the device and a video sequence of the The image anlysis consist of identiying 1) the number of sperm cells 2) the number of motile sperm cells present in the sample.

#### What else will I need?

A smartphone model with:

- A camera with a minimum of 12 Megapixels
- An operating system of at least Android vers. 23 or iOS min vers. 13.0
- Internet connection (250 kbps or faster)
- ExSeed Application Version: 2.0.0 or above (see in App settings)

sample is recorded via the ExSeed App and sent to the data analysis.

It take around 1-3 minutes for the image anlysis to be completed and the result to be shown in the ExSeed App. This will depend on the speed of the internet connection and the phone model that is used.

#### What sample may be tested?

The ExSeed system is designed to only test human semen samples. Use of any other sample will give an incorrect result.

For optimal results. do not ejaculate for 2-3 days before testing day and collect your sample by masturbation directly into the ExSeed collection cup. Don't use any lubricanst

#### How long does the kit last?

The ExSeed device has a battery life of 200 hours. The ExSeed analysis device, collection cups and wipes have a shelf life of 5 years. Sample slides have a shelf life of 2 years. See expiration date on the kit box label and use these items within expiration

### **TESTING INSTRUCTIONS**

### Step by step guide:

Before you take a semen analysis test, Download the ExSeed App, create a profile, and scan the QR code located in the ExSeed box.



#### Make sure that:

- You have the latest updated version of the app
- Your phone has at least 20% battery
- Your phone to keep your information confidential

date.

### How long will my sample last?

Your sample should be tested within 60 minutes of ejaculation. A sample that has been kept longer than 60 minutes mus be discarded, and new sample provided for a new test. We recommend ejaculation abstinent of 2-3 days before testing.

#### How to take a semen test

When you are on the app "Home" screen, press the "I'm ready, let's take the test" button and follow the instruction for testing.

You will be guided by illustrations, text, and videos. We recommend you to start by seeing the full version of **the introduction** video.

#### Press this button to start a test: I'm ready - let's take the test



#### **Step 1** Unpack and get ready.

#### Step 2

Deliver the semen sample directly in the ExSeed cup.





#### Step 3

Leave the sample in the cup and let it rest for 20 minutes at normal room temperature.

#### **Step 4** Mix the sample as instructed in the app.

#### Step 5

Use the scale on the ExSeed cup to evaluate the volume of the sample and insert it in the app.



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#### Step 6

Transfer the sample to the sample slide. Fill in both chambers as shown in the video.

#### Step 7

Remove residual semen from the sample slide using the wipe provided in the kit. **Step 8** Insert the slide into the device.







#### Step 9

Press "I'm ready to record" and align the camera on the phone and the ExSeed device. When 4 cones appear as seen below, press "Start Recording" to record the video.





#### Step 10

When ExSeed has analyzed your video, you will be presented with a result page like this:



### **SEMEN QUALITY TEST**

#### What does it mean?

When completing a semen test, you will see your results presented as in **step 10**.

In **section 1**, you see if your sample is **Below Normal** or **Normal** based on the Total Motile Sperm Count (TMSC).

In **section 2**, your results are explained more thoroughly and when pressing the (i), you can read about how these results relate to chances of pregnancy based on scientific literature.

#### Section 2

Normal

With 31,1 million moving sperm, this sample is in the normal range as defined by the World Health Organization.

Total Motile Sperm Count (TMSC, the number of moving sperm in your sample) is often regarded as the most important indicator for being able to conceive naturally as it relates directly to time to reach pregnancy with a partner. A normal number of moving sperm cells in a sample means that you have good chances of conceiving with your partner.

### How do I know the test has worked properly

When you have a result views as Shown in step 10, have successfully completed a test. if it is the first time you use the device for semen quality testing, we advise you to take one more test within 10 days and compare the two results to be sure of the semen quality level

Remember to have the same period of ejaculation absinence (recomended 2-3 days) for both tests.

If the ExSeed system cannot capture sperm cell or the video is not of proper quality (e.g. because the 4 light cones are not visible), an error message wll appear

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## What might stop ExSeed giving me correct results?

The following circumtances may affect your semen quality result and should be considered before taking a test:

- If the full sample no captured
- Irregular sleep for more than one week
- Use of medication affecting semen production
- Fever (above 38°C/100.4°C) for more than 2 days
- If you have felt hungover from alcohol up to 4 days prior to testing wait until you feel completely healthy to do a test, otherwise contact your medical professional.
- The following circumtances may affect results:
- Using the wrong semen sample
- Reusing a collection cup and lid
- Reusing a sample slide or using silde that is not from ExSeed
- Filling the sample slide inappropriately
- Holding smartphone in hand while testing
- Misaligning the analysis device and smartphone camera

### How accurate is the ExSeed system?

In a clinical study comparing the results of the ExSeed self test to certified laboratory equipment, ExSeed correctly classified a low Total Motile Sperm Cell result in over 95% of cases. Linearity for the sperm has been parameters in tested concentration range of 5M/ml, we recommend that you seek further medical consultation. If the test shows more than 125M/ml, it means that you are in the very high range. The test result in this range may be presented with less accuracy.

### **IMPORTANT NOTES AND** WARNING

According to the World Health Organization (WHO), semen is considered to be a biologicaly hazardous material which potentially can transmit hepatitis and HIV.

ExSeed kit components that come into contact with semen should be treated as bio-hazardous. Strictly follow the cleaning, storage and disposal instruction of this product.

The ExSeed device is intended to be used by one person only. Do not share the device with anyone, including family members.

- Protective, powder free non-latex gloves are recommended for anyone helping you to test your semen sample.
- collected during Semen sexual intercourse is not recommended as test result may be adversely impacted due to the effort of vaginal mocous PH.

- Sample volume linearity has been tested betweeen 1-3.5 mL. if your semen repeatedly is bellow 1 mL, we recommend that you seek further medical consultaion. if your sample volume is above 3.5 mL it means that you are in the very high range and, we recommend that you estimate your volume continue.
- Measurement precision has been tested with sample volume between 1.5-3 mL.
   If sample volume bellow 1.5 mL or above 3 mL, sperm parameters may be presented with less accuracy.
- If the full sample is not captured, discontinue and retest another day, since it may lead to inaccurate results.
- Please note that the presence of sexually transmitted diseases may negatively affect your sperm quality

- Use only ExSeed cups within their expiration date. You can check the expiration date on the ExSeed box label
- Be careful when handling the sample slide. There is a minimal possibility of cutting fingers if you break it by accident.
- The foil bag can be difficult to open. and take out the sample slide.
- It may be difficult to take off the lid from the cup once it constains a sample.
   Please be careful so you don't spill any semen.
- The ExSeed home test should not be used for contraception purposes.
- Use the ExSeed device in a dry environment and do not test during shower or under other wet conditions
- Perform ExSeed self testing in a environmental temperature betwwen 20-30°C (68-86°C) Do not heat or cool your semen sample.
- Please note that the use of D-norgestrel (steroidal progestin) may negatively affect your spem quality.
- Do not re-use any ExSeed sample slides or cups. For more sample slides or cups, order on: www.exseedhealth.com
- Any incident or adverse event taking place from using the device shall be reported to the manufacturer of the device.

### **AFTER USE**

The sample slide and cup are for single use only. Please dispose of them once used. Use a wet wipe to clean the surface of the ExSeed device's surface.

#### Disposal

The ExSeed device incorporates batteries. Dispose of the device in accordance with local regulations.

After each semen test, the used cup with the lid should be closed, wrapped in a separate bag, and disposed of as normal household garbage. The sample slide is to be disposed of with other glass materials or in regular household garbage once inserted into the opened plastic bag.



Any serious incidents that has occurred in relation to the device shall be reported to the manufacturer and the competent authority of the Member State in which the user and/or the patient is established.

#### Storage

The ExSeed Kit should be stored at room temperature (15-25°C / 59-77°F). We recommend that it is not exposed to temperatures below - 20°C (-4°F) or above 40°C (104°F). The ExSeed Analysis Device should always be stored in the ExSeed box when not in use.

### HELP AND GUIDANCE

For technical help or other questions, you are always welcome to contact the ExSeed Team via <u>www.exseedhealth.com</u> or through the app in the Support and Feedback section.

# OTHER LANGUAGES

Scan the QR code to download the instructions for use in other languages. New languages are added as they become available.



#### Symbols used in the system





ExSeed Health ApS Njalsgade 21G 2300 Copenhagen S Denmark www.exseedhealth.com Store at 15-25°C

Single-use only

Self-test in Vitro Diagnostic Device

IP22

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