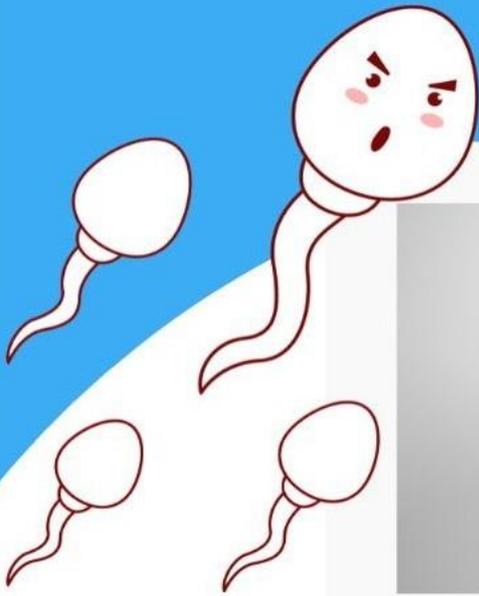




Semenalytica

Informed decision, Empowered choices

User Guide



Collect the sample



Test



Record and Uploade the video



Get Result



Contents

- 1. Unboxing the SemenAlytica Kit**
- 2. Understand the device and lens**
- 3. General Information**
- 4. Sample collection**
- 5. Physical characteristics**
- 6. Using the SemenAlytica Kit**
- 7. Result and Implications**



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UnBoxing The SemenAlytica kit.

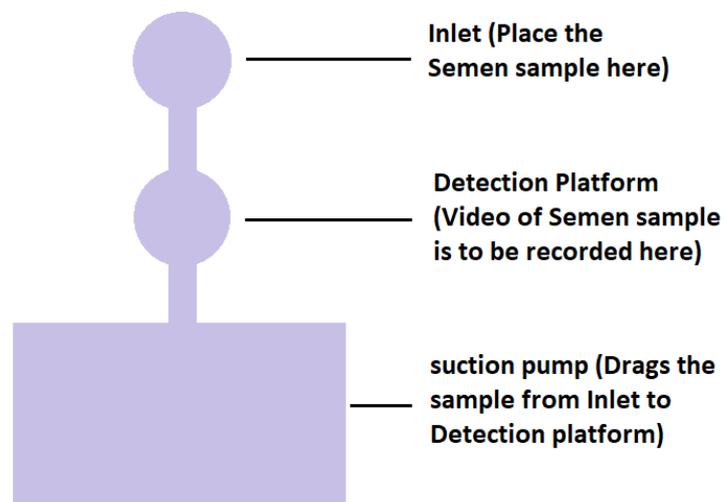
SemenAlytica Kit contains following items

1. Two piece of our patented microfluidic devices
2. Two cups for sample collection
3. Two syringe for sample handling
4. A uniquely designed patented lens for high resolution imaging
5. A hand glove



Understanding the device and Lens

Our Patented Microfluidic Device consist of a microfluidic suction pump, an Inlet and a detection platform as shown in the figure below.



GKT Meditech™

Inlet- is the point where semen sample is to be placed

Detection platform- is the section where video image is to be recorded

Pressure pump- is provided to displace the sample from Inlet to detection platform

General Information

Please put the general information about yourself as accurate as possible. It will help in appropriate analysis of the sample as well as your treatment plan. A cumulative data will also help to device community guidelines and policy framing. So it is important to keep your lifestyle data as appropriate as possible. Web portal to analyse the semen quality is available on semenalytica.com (<https://semenalytica.com/auth/jwt/test>)

Age: round off your age to the nearest integer.

State/Region: The stat to which you belong should be selected here.

Smoking: If you smoke more than 1 cigarette in a month, then please consider yourself as smoking person. If number of cigarette smoked per month is varying, then put an average number of cigarettes smoked in last two months.

Alcoholic: If you consume any non-medicinal alcoholic beverage with alcohol content more than 10%, please consider yourself alcoholic. Please mention an average quantity of alcoholic beverage consumed in last two months.

Abstinence period- is the period when you last made the ejaculation either through masturbation or intercourse. It is recommended to maintain an abstinence period of at least 20 days before semen analysis to get an appropriate result. Any kind of ejaculation of reproductive fluid should not be considered under abstinence period.

Sample Collection

There are two methods of Sample collection.

1. **Condom collection-** It is recommended to collect the sample using condom collection method as it gives more semen volume. Semen sample collected in condom is transferred to the collection cup.
2. **Masturbation-** Directly ejaculate the sample in the collection cup.

Volume- Mention the volume of semen sample in the collection cup after liquefaction.

Liquefaction time- While ejaculation the colour of semen sample may vary, but after few minutes it becomes transparent. The process of being transparent is liquefaction, and time taken to become transparent is called liquefaction time.

Physical characteristics

Colour- Mention the colour appearance of the semen sample from whitish/ greyish/ yellowish.

Consistency- Mention if the semen sample is thick (jelly like) /viscous/watery/lumps

Liquefaction time- While ejaculation the colour of semen sample may vary, but after few minutes it becomes transparent. The process of being transparent is liquefaction, and time taken to become transparent is called liquefaction time.

After filling the data capture the video of semen sample in the microfluidic device, and upload it on the web portal of semenalytica (<https://semenalytica.com/auth/jwt/test>) to get your personalized semen quality analysis result.

Using the SemenAlytica Kit

Using the SemenAlytica Kit involves following steps.

1. Collect the sample in the collection cup and allow the semen sample for some time in the collection time till it becomes transparent. Note the time difference between ejaculation and being transparent. Mention this time as liquefaction time.
2. Check the volume in the collection cup provided and note it.
3. Check the colour and consistency, and note them.
4. Keep the camera in the macro or HD mode. Place our patented lens on the corresponding Smartphone camera using the transparent adhesive film provided in the kit. To know the corresponding camera to HD or macro mode, keep the phone in the desired mode. Place the finger on all the camera's. when screen turns black, that camera should be used to place the given macro lens.
5. Open the microfluidic device, and using the syringe provided, place a drop of liquefied semen sample on the inlet of the microfluidic device.
6. A. Press the pressure pump and release the pressure, so that semen sample appears in the detection platform.
B. If there is any bubble around inlet, then remove it by syringe.
C. Alternatively, press the pressure pump and then place the semen sample, by releasing the pressure, sample will appear in the detection platform.
7. Using the smartphone and lens setup, record a video of 5-20 seconds where sperms samples are resolved. Record the video image in a well illuminated area to easily observe the resolved sperm samples. The recorded video should be preferably less than 30 seconds.
8. Alternatively, switch on the flash light of the smartphone at low intensity to easily resolve the sperms in the semen sample.
9. Fill the essential information as instructed before and upload the video on the SemenAlytica website to get your personalized result.

Result and Implications

Colour - Whitish/light greyish colour semen sample is considered normal. While yellowish/dark greyish or blackish/pink semen sample may represent different cases from jaundice/spinal injury/prostate injury respectively.

Consistency - whitish jelly like consistency is considered normal, while watery or lumps formation in semen sample are not considered healthy signals.

Liquefaction time - Liquefaction time less than 5 minutes and more than 30 minutes are abnormal.

Sperm count- Sperm count varies from age being maximum at teenage and decreasing with age. Sperm count more than 15 million is considered good enough to conceive. However, true implication of sperm count should be made by a professional doctor.

Motility- Motility greater than 45% is considered sufficient to conceive. Anything less than that indicate male problem in reproductive issues.

Agglutination- No agglutination is recommended for a good semen health.