

CLUE #1

RGH Laboratory
Patient Services
2020 Rochester Road
East Irondequoit, NY 14618



New Patient Medical History Form

Patient Name: <i>Jailyn Jenkins</i>	Date of Visit: <i>03/20/19</i>
Date of Birth: <i>2/18/90</i>	Social Security Number: <i>555-12-3456</i>
Address: <i>123 Rochester Avenue</i>	Emergency Contact: <i>Carlos Jenkins</i>
Marital Status: <input type="checkbox"/> Single <input checked="" type="checkbox"/> Married <input type="checkbox"/> Divorced <input type="checkbox"/> Separated	
Employer: <i>Food Link Inc.</i>	Occupation: <i>Public Outreach</i>

Medical History

Please list any medications you are currently taking: <u><i>daily women's multi-vitamin,</i></u> <u><i>occasional Advil</i></u>	Please list any allergies: <i>pollen, Latex</i>
Have you traveled outside of the country in the past 3 months? <i>No</i>	
Have you had any surgeries? <i>Yes. I've had my appendix removed.</i>	
How often do you drink alcohol: <input checked="" type="checkbox"/> Never <input type="checkbox"/> 1-2 drinks a week <input type="checkbox"/> 3-7 drinks a week <input type="checkbox"/> 8+ drinks a week	

Fertility Information

Do you have any children? <u><i>No</i></u>
Have you been able to conceive in the past? <u><i>No</i></u>
Have you ever had a miscarriage? <u><i>No</i></u>
Have you ever sought fertility treatments before? <u><i>No</i></u>

CLUE #1

RGH Laboratory
Patient Services
2020 Rochester Road
East Irondequoit, NY 14618



New Patient Medical History Form

Patient Name: <i>Carlos Jenkins</i>	Date of Visit: <i>March 20, 2019</i>
Date of Birth: <i>8/23/85</i>	Social Security Number: <i>987-65-4321</i>
Address: <i>123 Rochester Avenue</i>	Emergency Contact: <i>Jailyn Jenkins</i>
Marital Status: <input type="checkbox"/> Single <input checked="" type="checkbox"/> Married <input type="checkbox"/> Divorced <input type="checkbox"/> Separated	
Employer: <i>Westfall Dental</i>	Occupation: <i>Dental Hygienist</i>

Medical History

Please list any medications you are currently taking: <u>protein supplements, daily multi-vitamin, occasional Tylenol</u>	Please list any allergies: <i>None</i>
Have you traveled outside of the country in the past 3 months? <i>Yes- Montreal Canada</i>	
Have you had any surgeries? <i>Yes- I tore my ACL training in 2009 and had surgery to repair it</i>	
How often do you drink alcohol: <input type="checkbox"/> Never <input type="checkbox"/> 1-2 drinks a week <input checked="" type="checkbox"/> 3-7 drinks a week <input type="checkbox"/> 8+ drinks	

Fertility Information

Do you have any children? <u>No</u>
Have you been able to conceive in the past? <u>No</u>
Have you ever had a miscarriage? <u>N/A</u>
Have you ever sought fertility treatments before? <u>No</u>

CLUE #2

RGH Laboratory
Endocrinology Report
2020 Rochester Road
East Irondequoit, NY 14618



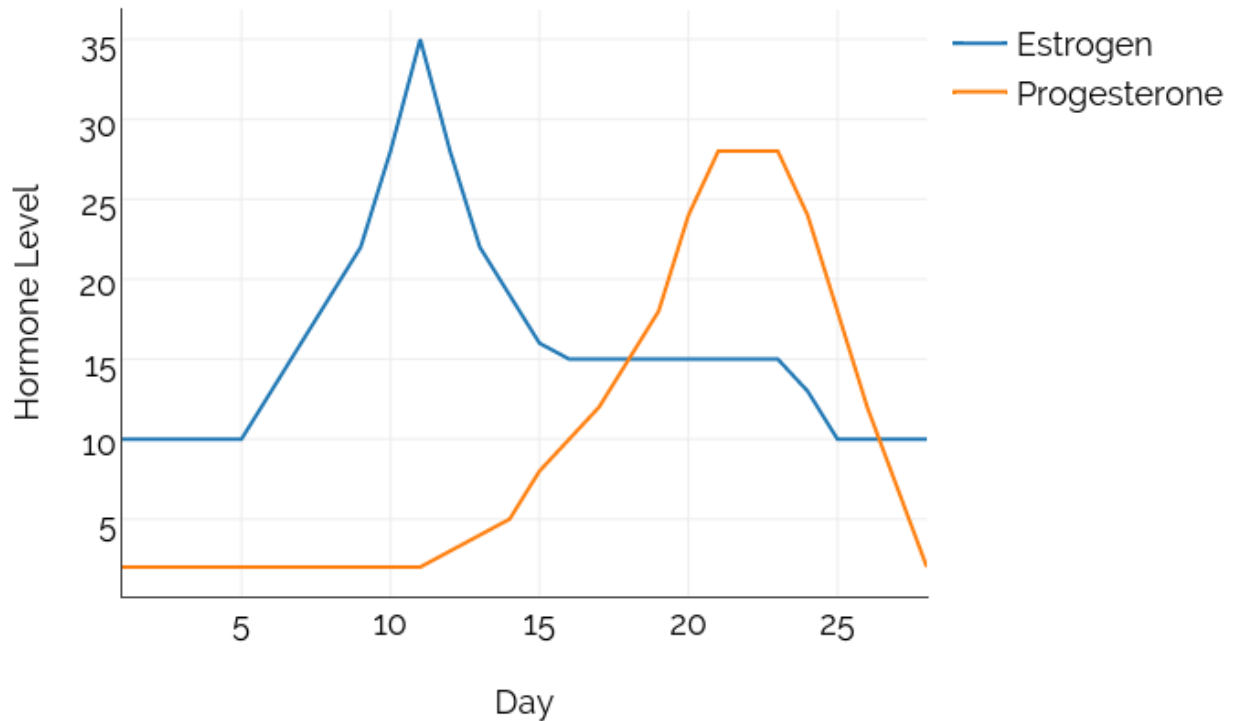
Hormone Level Results

Patient: Jailyn Jenkins

Date of birth: 02/18/90

Requested hormonal level tests: Estrogen, Progesterone

Jailyn Jenkins



CLUE #3

RGH Laboratory
Ultrasound Imaging
2020 Rochester Road
East Irondequoit, NY 14618



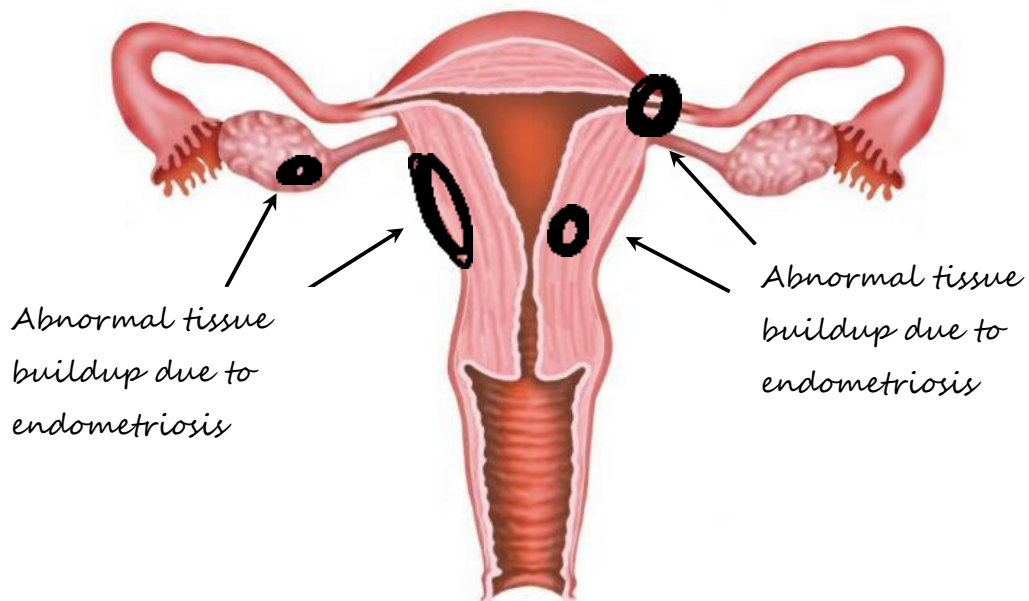
Ultrasound Report

Patient: Jailyn Jenkins

Date of birth: 02/18/90

Physician's notes:

The pelvic ultrasound showed areas that are affected by endometriosis. See the diagram below:



CLUE #4

Anabolic Steroids



While anabolic (which means “muscle-building”) steroids can be used to treat some medical conditions, they are often misused by athletes in an attempt to boost performance or improve their physical appearance.

Misuse of anabolic steroids leads to negative mental effects, such as:

- Paranoid (extreme, unreasonable) jealousy
- Extreme irritability and aggression (“roid rage”)
- Delusions—false beliefs or ideas
- Impaired judgment
- Shrinking testicles
- Decreased sperm count
- Baldness
- Development of breasts
- Increased risk for prostate cancer
- Stunted growth in teens

Anabolic steroids are very similar to the hormone testosterone. When a man takes steroids, his body thinks he has enough testosterone already, so it stops making its own testosterone. This is an example of a *negative feedback*. The effects of steroids can last for up to a year after a person stops using them.

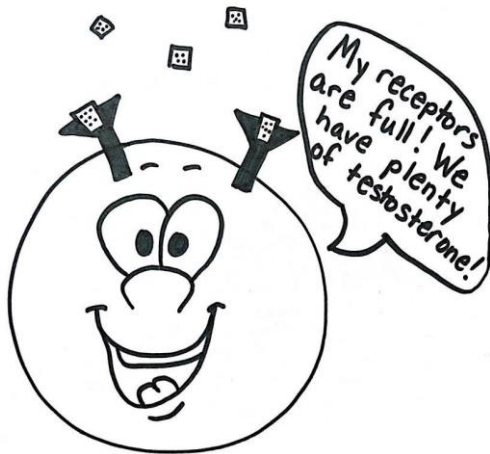
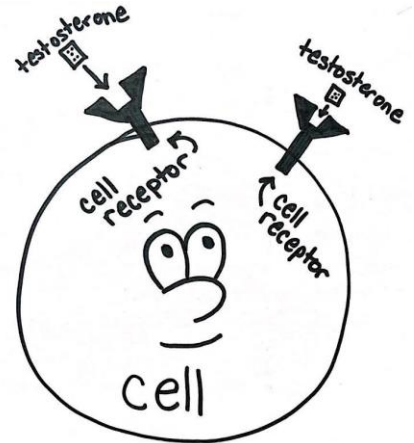
CLUE #5

Carlos's Testosterone Levels

You find that Carlos's testosterone levels are *lower* than normal.

Fortunately for Carlos, his use of anabolic steroids 10 years ago is no longer affecting his testosterone levels today. But something must be going on... why aren't his testosterone levels normal?

You take another look at Carlos's medical history. His occupation catches your eye- he is a dental hygienist. You remember reading in your biology class that the plastics used in dental sealants may contribute to BPA exposure. You know that BPA, found in a lot of plastics, is an "endocrine disruptor". This means that it interferes with normal hormone production in the body. You test Carlos's urine and find that there are, in fact, very high levels of BPA. How does this affect Carlos's testosterone production?



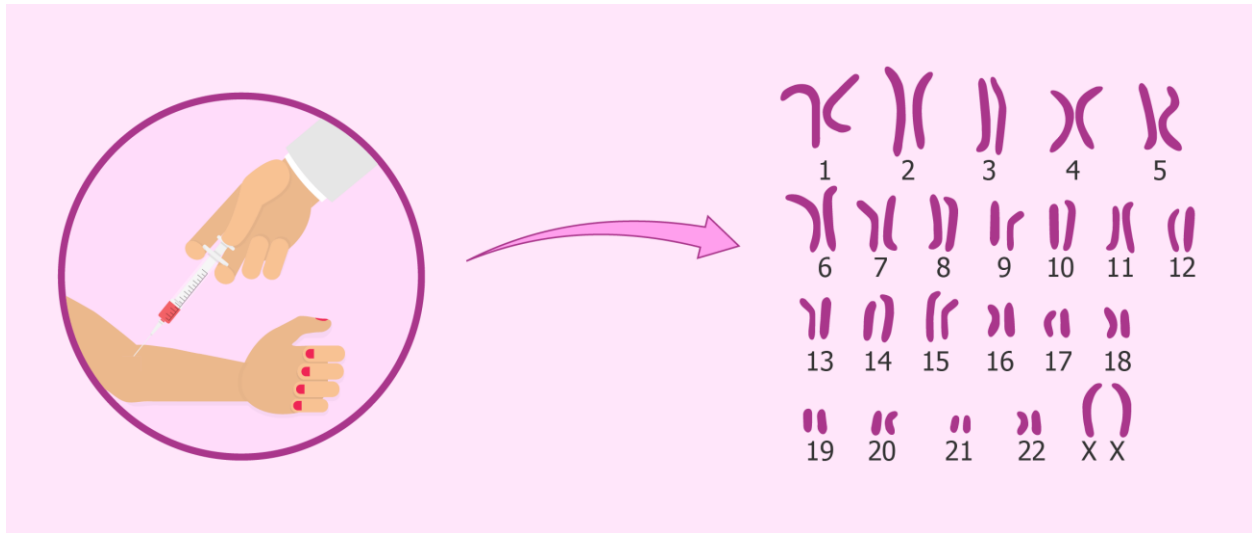
Normally, testosterone binds to cell receptors. When this happens, the cell is able to signal to the body that there is enough testosterone present, and the body doesn't need to make more right now.

When there is nothing bound to the cell receptors, the body knows that there is not enough hormone in the body. It tells the body to make more, stat!



CLUE #6

Genetic Basis of Female Infertility



Researchers have begun to look into genetic causes of female infertility. Genome-wide association studies (GWASs) have been used to search for the genetic cause of Premature Ovarian Failure. A number of potential genes that may cause Premature Ovarian Failure have been found, including a gene named “PTHB1” and another gene named “ADAMTS19”. Larger follow-up studies are needed to confirm these findings.

Most diseases that have a genetic component are caused by variations in more than just one gene region. Environmental factors such as exercise, diet, exposure to radiation, etc. also may have an important influence. Having a certain sequence in a region of DNA therefore does not necessarily mean you will get the disease, but it may mean you are more susceptible to getting the disease.