

### **EGG THAW & EMBRYO TRANSFER**

**Patient Orientation** 





# Welcome to the NYULFC Egg Thaw & Embryo Transfer Orientation Class.

Section 1: NYULFC Overview

**Critical Information for Egg Thaw & Embryo Transfer Cycles** 

Section 2: Embryology

**Embryology** & Andrology

**Embryo Development** Preimplantation Genetic Testing **Section 3: Embryo Transfer** 

The Embryo Transfer:

Fresh FT Frozen ET **Pregnancy Monitoring** 

Section 4: Wellness

Wellness & Support for **NYULFC Patients** 

Section 5: Research

Research Studies & **Participation Options** 





### Hello & Welcome!

#### Haley Penny, LMSW

Health Educator NYU Langone Fertility Center

#### **NYU Langone Fertility**

660 First Avenue, 5<sup>th</sup> Floor New York, NY, 10016



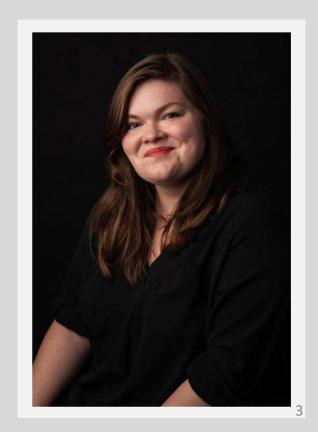
E: Haley.Penny@nyulangone.org



T: 212-263-8990



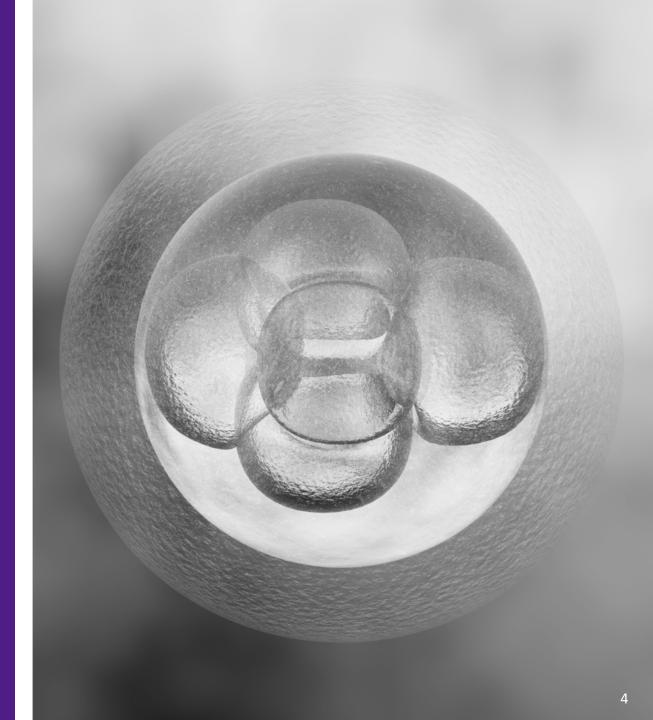
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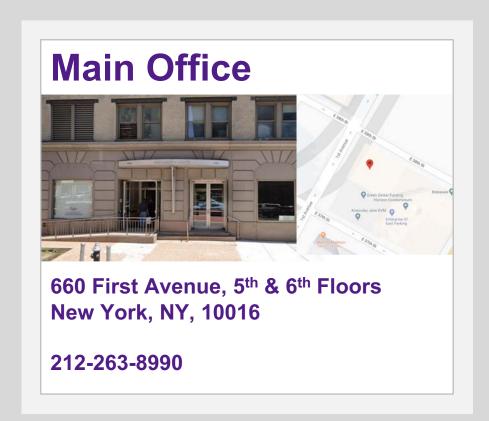
**Section 1: NYULFC Overview** 

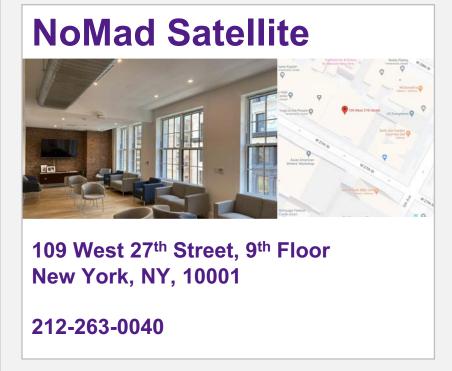
Critical Information for Egg Thaw & Embryo Transfer Cycles at NYULFC





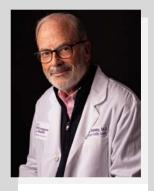
### Office Locations







# Meet the NYULFC Physician Team



Alan Berkeley, MD



Jennifer Blakemore, MD



Shannon DeVore, MD



Elizabeth Fino, MD



James Grifo, MD, PhD



Brooke Hodes Wertz, MD, MPH



David Keefe, MD



Frederick Licciardi, MD

### World Class Outcomes. Expert & Exceptional Care. Constant Collaboration.

Our physicians have over 140 years collective experience performing IVF. Each member of the NYULFC physician team is dedicated to delivering exceptional clinical care, and all members of the team collaborate daily to deliver best-in-class outcomes for NYULFC patients.

NYULFC operates on a "Doctor-of-the-Day" model, which means one physician is assigned to perform all surgical procedures each day. You will see your physician throughout your treatment cycle, and your physician will direct your care plan (including medication dosage, monitoring frequency, and other clinical directives), however it is possible that your physician may not be the one assigned to perform surgery on the date of your procedure.

During your care at NYULFC, you may also meet our staff physician, Dr. Lisa Kump. While Dr. Kump is no longer accepting new patients, she provides outstanding care for all patients in-cycle at the Fertility Center.



### Reproductive Endocrinology Fellows









Jacquelyn Shaw, MD

Sarah Cascante, MD Ashley Wiltshire, MD

NYULFC is part of the Division of Reproductive Endocrinology and Infertility (REI) at NYU School of Medicine's Department of Obstetrics and Gynecology.

We host a 3-YR fellowship training program in REI approved by the American Board of Obstetrics and Gynecology.

**Fellows are licensed physicians** and have completed a 4-YR residency in OB-GYN prior to subspecializing in REI.

Throughout your time at the NYULFC, you will interact with our fellows who provide clinical care and on-call responsibilities (including emergencies).



### **Genetic Counseling**

Andria Besser is a Board-Certified Genetic Counselor and the Director of Reproductive Genetics at NYULFC.

Indications for Genetic Counseling include:

- Personal or family history of genetic disease, chromosome abnormality, or birth defect
- Couples who both carry the same autosomal recessive genetic disease
- Female carriers of X-linked diseases

#### Available by appointment.

Contact our Genetics Coordinator, Sylvia Wadowiec, at

<u>Sylvia.Wadowiec@nyulangone.org</u> or 212-263-0054 to schedule a phone consultation.



Andria Besser, MS

### Carrier Screening for Recessive Genetic Diseases

NYULFC uses the laboratory "Sema4" for carrier screening. Carrier screening can help detect if an individual is at risk of having a baby with a specific inherited disorder. Carrier screening is performed via bloodwork or saliva sample.

### Preimplantation Genetic Testing (PGT-A, PGT-M)

NYULFC uses the laboratory
"Coopergenomics" for PGT. PGT can help
to screen an embryo for genetic
abnormalities. If you are considering PGT,
a phone consult with a Coopergenomics
Genetics Counselor is required.

Please note that NYUFC does not provide testing or genetic counseling for hereditary cancers such as BRCA1/BRCA2.

These appointments are available through the NYU Perlmutter Cancer Center (646-754-1376).





# Patient Care Coordinators

Your Patient Care Coordinator serves as your point person throughout your treatment cycle.

At NYULFC, each physician collaborates directly with a Patient Care Coordinator to form a "Physician Pod" or care team. Patients of Dr. Alan Berkeley & Dr. Frederick Licciardi

Rose Polidura 212-263-6498 FertilityCoordinators@nyulangone.org Rose.Polidura@nyulangone.org

Patients of Dr. Brooke Hodes Wertz & Dr. Jennifer Blakemore

Kimown Peters 646-754-1253 FertilityCoordinators@nyulangone.org Kimown.Peters@nyulangone.org

Patients of Dr. David Keefe & Dr. Shannon DeVore

Emily Hawkins
212-263-3659
FertilityCoordinators@nyulangone.org
Emily.Hawkins@nyulangone.org

Patients of Dr. James Grifo

Maribel Feliciano
212-263-7967
FertilityCoordinators@nyulangone.org
Maribel.Feliciano@nyulangone.org

Patients of Dr. Elizabeth Fino

Joanna Marrero-Constantine 212-263-7976

FertilityCoordinators@nyulangone.org Joanna.Marrero-constantine@nyulangone.org

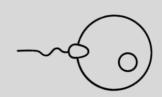
When contacting your Patient Care Coordinator, please email:

FertilityCoordinators
@nyulangone.org

and copy your dedicated Coordinator.



# Embryology and Andrology Laboratory Schedule



The NYULFC embryology, andrology, & endocrinology laboratories are located on the 6<sup>th</sup> Floor at 660 First Avenue.



NYULFC's laboratories close for 10 days each December to perform extended cleaning and maintenance ("August & December Downtime").

NYULFC continues to provide monitoring, consultations, and non-IVF procedures during the closure periods.

Please contact your Patient Coordinator with any questions you have regarding the laboratory downtime period.

Your Coordinator will make sure you can complete your cycle prior to the December closure.



### **Prerequisite Tests & Appointments**

Please note, all required tests (i.e. "checklist") and insurance pre-certification must be completed prior to the start of your cycle. Failure to complete all checklist items or consents will delay your treatment.

ests/appointments must be	comple	you proceed through a trea ted in advance of your Day ological consultation, testin	2/3 star	t. With the exception of ser	men
ax to (212) 263-4821, Attn	: Patien	t Coordinator			
Patient Name				Date of Birth	
Partner Name				Date of Birth	
Female Requirements	Need	Male Requirements	Need	Both Partners	Need
Hepatitis B Surf Antigen Ag		Hepatitis B Surface Ag		Psychological consult (if using donor sperm/egg)	
Hepatitis C Virus Antibody Ab		Hepatitis C Virus Ab		Driver's License or Passport	
Syphilis (RPR, VDRL)		CBC**		Prescription Card	
HV1/HV2		Hgb Electropheresis		Insurance Card	
Medical Clearance		Syphilis (RPR, VDRL)		Authorization for Procedure	
Measles Ab IgG		HV1/HV2		Authorization for Medications	
Varicella Ab IgG		Medical Clearance		Contact Nurse to Order Medications	
Rubella Ab IgG		Semen Analysis			
Hgb Electropheresis		Sperm Frozen	Y/N	Contact Pharmacy to Deliver/ Pick-up Medications	
Blood Group & Rh		Is Specimen at NYULFC?	Y/N		
Comprehensive Genetic Screening		Comprehensive Genetic Screening		PGS/PGD Consultation	
Blood Type Anti-Body		Orientation/Consents			
C8C**					
Prolactin (if menses 35+ days)			Inc	surance and Medication Authori Joanne Healy (212) 2	263-0037
TSH				Michele Headley (212) 2 Nati Marte (212) 2	263-2707 263-0392
FSH / E2 (A)**				Vicki Salinas (212) 2	063-0375
AMH		Patient Coordinators: Maribel Feliciano (2/12) 263-7967 Kimoun Peters (2/12) 263-6652 Charmaire Chestnut (2/12) 263-6658 Danita Wynn (2/12) 263-0297			
Cervical Culture: Chlamydia					
Cervical Culture: Gonorrhea					
Cervical Culture: Pap Smear (B)				Andrology Lab Cook	rdinator:
Sounding				Rose Polidura (212) 2	263-0079
Hysterosalpingogram (HSG) or FemVue				Main Office (All Hours): (212) 2 Billing Department: (212) 2 fart your menstrual cycle): (212) 2	263-8647
Mammogram (C)		Anter-Hours Record-Only (WI	nen you si p	farf your menstrual cycle) : (212) 2 sychological Appointment: (212) 2	263-0054
Orientation/Consents		Mon Blood Testing Hours	ning Mon	Boring Hours: 7-9am, seven day through Friday, 10am to Noon ar	s a week
	-	CooperGenomics: (877) 282-3112			

The checklist pictured above is a generic guideline. You will receive a customized checklist from your Patient Care Coordinator.

Please inform us if you or your partner have any medical conditions or allergies, or are on any prescription medications or herbal supplements. Some medical conditions will require documented clearance from your personal physician prior to treatment. (Cardiology, Nephrology, etc.)

Your "Advance Directive" (if you have one) should be provided at the start of treatment. Information is available from your MD's assistant.

#### Consents

NYULFC partners with EngagedMD to deliver consent forms and video education modules directly to your email inbox.

You will receive your consent forms via email, and you will be required to verify your identity when you sign.

You will be asked to scan your driver's license or passport using

All consents must be complete prior to cycle start.

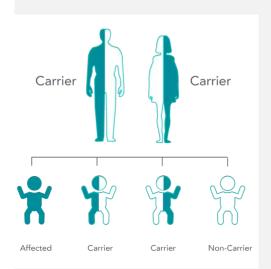
your phone.





### **Genetic Testing: Carrier Screening**

Carrier screening is strongly recommended for all patients and/or couples. If performed, results must be complete prior to ovulation induction (egg retrieval).



Carrier screening involves a blood or saliva test to analyze +200 genes to detect if an individual is at risk of having a baby with a specific inherited genetic disorder.

Most diseases tested are autosomal recessive, and there is only a high risk if **both** people contributing the egg and the sperm are carriers for the **same** disease.

A few diseases are X-linked, and female carriers alone can have a high risk.

If a high risk is identified, a Genetic Counselor will discuss your options.

Most people (regardless of age) will test positive for at least one disease, and the vast majority have no family history. Please be aware that routine embryo testing (PGT) will NOT test for these conditions, which is why it is important to perform carrier screening prior to embryo creation.

NYULFC uses the laboratory "**Sema4**" for carrier screening. Complimentary genetic counseling is provided by Sema4, and is mandatory prior to cycle start for anyone with positive results.





# Reservation for Cycle Start

# Reservation Requirement

### A Cycle Start Reservation



is required for all patients undergoing care at NYU Langone Fertility Center.

## Reservation Timing

To account for variation in menstrual cycle timing, all Cycle Start Reservations are honored within a 7-day window of the confirmed date

Example: if your reservation for Day 2 Start is confirmed for the 14th of a month, your reservation will be honored between the 7th and the 21st of the month.

### How do I make a Reservation?

Please contact your Patient Care Coordinator to make a Day 2 Cycle Start Reservation.

Your Coordinator will book your Cycle Start Reservation. Your Coordinator will also call you 1-week prior to your anticipated menses to confirm your Reservation.



# What is a "Day 2" Start?

Day 1 of your menstrual cycle is considered full flow menstrual period before midnight (not staining or spotting).



Day 2 is the following day.

If you are taking birth control, this will be 4 days after the last active pill.





## Morning Monitoring at NYULFC

### When & Where

Morning Monitoring services, including bloodwork and ultrasound, are available at both offices (Main Office & NoMad Satellite).

Morning Monitoring occurs between **7AM – 10AM**, 7 days per week.

Appointments are required for morning monitoring.

### Afternoon Call-Backs

Expect a phone call from a nurse during the afternoon following your morning monitoring visit.

Please provide us with the best phone number (with voicemail!) to reach you between 12PM – 5PM.

Please follow all instructions delivered by your nurse.

### Contact Information

Questions?

Please call the main office at 212-263-8990.

The best time to reach our nursing staff is between 10AM – 5PM ET.





# Onsite Safety & COVID-19

NYULFC and the NYU Langone Health system are managing COVID-19 risks together, and the safety of our patients and staff is our top priority.

If you are experiencing a medical emergency, please call 911. If you are not feeling well, please do not come to the office. Please seek treatment from your primary care provider, and contact your NYULFC nurse to inform us of your illness. Your physician will collaborate with you to determine the appropriate next steps in your care plan.

At NYULFC, are utilizing all guidance available from ASRM, the CDC, the New York State Department of Health, and NYU Langone Health to institute safety precautions. Please be aware of new social distancing and safety practices at NYULFC.

#### 1) Masks are mandatory.



All patients and staff are required to wear a mask while onsite. Please plan to arrive wearing your mask, and please keep your mask on for the duration of your visit.

#### 2) Appointments are required.

In order to reduce the number of individuals in our waiting areas, each patient will receive an appointment for morning monitoring. To protect the safety of our patients and staff, patients will only be allowed to enter the Center during their scheduled appointment.

#### 3) Guests are not permitted.

To minimize the number of individuals onsite, only the scheduled patient will be admitted to the facility. All patients visiting NYULFC for morning monitoring, bloodwork, or imaging scans must attend without any visitors present. Children are not permitted onsite. We apologize for any inconvenience. We are committed to protecting the safety of our patients and staff by limiting the number of individuals in our space.

### 4) All patients will be screened for temperature and health at entry.

Every individual entering NYULFC will be required to pass a temperature screening and will be screened for COVID-19 related symptoms. We regret the necessity of this intrusion upon your time.

#### 5) Cycle Disruption Policy

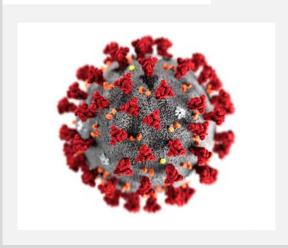
If an individual demonstrates symptoms of COVID-19 related illness during a treatment cycle, or if the individual is mid-cycle and tests positive for COVID-19, the cycle will be cancelled or suspended.

If this cancellation or suspension occurs prior to retrieval, we will issue a credit balance in accordance with services rendered during the cycle. Credit balances will be established on a case-by-case basis. We are not able to extend credit toward products or services provided by third parties (products or services provided by third parties include but not limited to medications, phlebotomy, anesthesia, genetic testing, tissue storage fees, etc).



# **ALERT: Mandatory COVID-19 Testing**

#### COVID-19 Test Requirement



#### Who & Why?

On June 14<sup>th</sup> 2020, New York State issued new guidelines mandating that all office-based surgery practices must perform COVID-19 testing on patients **within 5-days prior** to the office-based procedure.

No COVID-19 test = no procedure.

This will apply to NYULFC patients undergoing oocyte retrieval, D&C, or TESE.

#### When & Where?

All patients must download the NYU MyChart application.

Your physician will order a COVID-19 viral test for you using MyChart. You will log-in to your MyChart account to schedule your COVID-19 test at an NYU testing center.

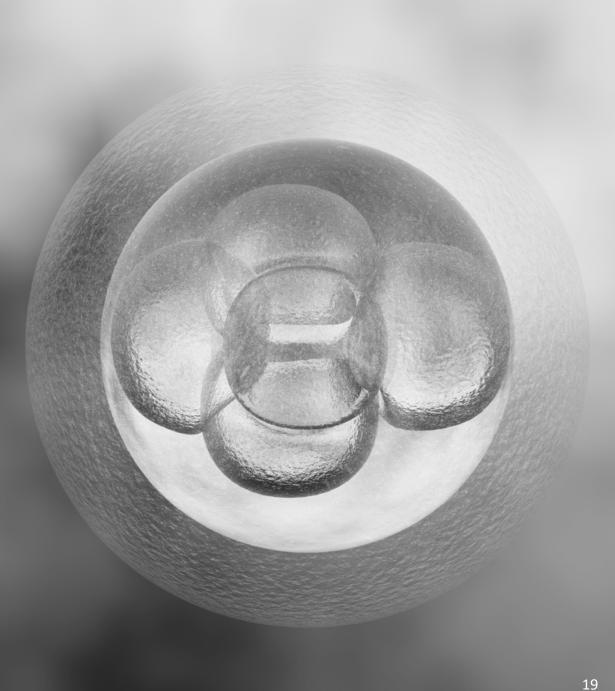


iOS: <a href="mailto:apps.apple.com/us/app/nyu-langone-health/id1196929294">apps.apple.com/us/app/nyu-langone-health/id1196929294</a>

Android: play.google.com/store/apps/details ?id=org.nyulmc.clinical.mychart&hl=en US

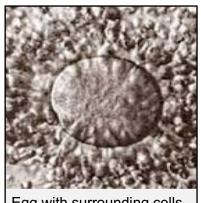


Section 2: **Embryology** & Andrology





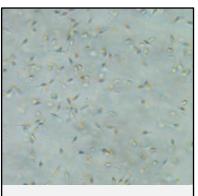
# **Embryo Development**



Egg with surrounding cells immediately after retrieval



Mature egg with surrounding cells removed



Semen are processed to concentrate motile cells



Embryo that has reached the blastocyst stage



Day 1
Fertilisation



Day 2 4 cell



Day 3 8 cell



Day 4 Morula



**Day 5**Blastocyst



# Intracytoplasmic Sperm Injection ("ICSI")

Intracytoplasmic Sperm Injection is when a single sperm is injected into the egg to assist fertilization.

ICSI is indicated for certain types of genetic tests, and/or if the male partner:

- Has low sperm count and/or motility when semen specimen is analyzed
- Has a clinical history of poor fertilization efficiency
- Uses any of the following:
  - Calcium channel blockers (Procardia®, Norvasc®, Adalat®, Calan®, Verelan®, Tiazac®, Dilacor®, Sular®, Caduet®)
  - Testosterone or other bodybuilding enhancers
  - Any other medications known to effect sperm number or function
- Has an acute drop in motility following sperm preparation on the day of egg retrieval





# Pre-Implantation Genetic Testing (PGT)

PGT refers to genetic testing performed on an embryo in the early stages of embryonic development.

PGT can be used to identify embryos affected by **chromosomal abnormalities** that could increase the chance of miscarriage or increase the chance of a pregnancy affected by chromosomal conditions (ie. cystic fibrosis, Tay-Sachs disease, hemophilia).

Preimplantation genetic testing and the subsequent transfer of a single, euploid ("normal") embryo increases the chance of successful implantation and, ultimately, increases the chance of a successful pregnancy.

PGT requires the removal of a small number of cells from the developing embryo in a process called an "embryo biopsy." The biopsy is performed by skilled embryologists at NYULFC. The embryos are then frozen and stored onsite at NYULFC, while the sample of cells removed ("embryo culture") is sent to CooperGenomics, a genetic testing lab, to perform PGT analysis.

#### **PGT-A (Aneuploidy)**

PGT-A is the most common type of PGT, available to all patients creating embryos. PGT-A tests for chromosomal abnormalities that occur spontaneously (e.g. are not inherited in families).

Chromosomal abnormalities are very common (often present in +50% of embryos) and usually result in failed implantation and miscarriage.

PGT-A does not test for inheritable genetic diseases (this is why NYULFC recommends carrier screening), or birth defects, autism, or developmental issues.

#### **PGT-M (Monogenic)**

PGT-M tests for inherited genetic conditions if there is a known high risk of having an affected pregnancy.

PGT-M always requires prior review by a specialized PGT lab and development of a custom test before cycle start (requires minimum 3-4 months).

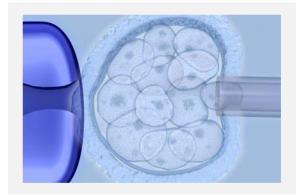
#### **PGT-SR (Structural Abnormality)**

PGT-SR tests for inherited chromosomal abnormalities (e.g. balanced translocations).

PGT-SR always requires prior review by a specialized PGT lab. Some cases also require a custom test to be developed prior to cycle start.

#### **FET Cycle Requirement**

PGT requires that embryos are cryopreserved (frozen) while the embryo biopsy is sent to CooperGenomics for analysis. Once results are received, patients can schedule an embryo transfer occurring in a separate cycle (a frozen embryo transfer, or "FET" cycle).



#### CooperGenomics

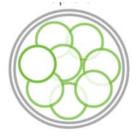
NYUFC uses the laboratory Coopergenomics as our PGT-A provider. If you are considering PGT-A, a phone consultation with a Coopergenomics Genetic Counselor is required prior to cycle start.

Please be aware: PGT incurs additional lab fees that are separate from NYULFC fees. PGT fees are paid directly to the PGT lab.



#### **PGT-A: Possible Results**

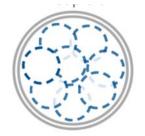
### Euploid ("Normal")



A euploid or "normal" result means that 23 pairs of chromosomes were detected in the embryo biopsy.

These embryos have the highest chance of resulting in a live birth and the lowest chance of miscarriage.

### Aneuploid ("Abnormal")



A whole chromosome aneuploid or "abnormal" result means that at least one extra or missing chromosome was detected in the embryo biopsy, and is believed to be present in all tested cells.

NYULFC does not recommend transferring whole chromosome aneuploid embryos, as they very rarely result in healthy pregnancies.

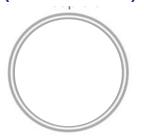
### Mosaic/Segmental Aneuploid



A "mosaic" result means there may be extra or missing chromosomes in some cells in the embryo biopsy. A "segmental aneuploid" result means there may be extra or missing pieces of chromosomes in the embryo biopsy. Embryos with these results sometimes result in healthy live births, but do so at a lower rate than euploid embryos, and may have additional risks.

If you are considering transfer of a mosaic or segmental aneuploid embryo, NYULFC requires a consultation with our genetic counselor prior to initiating your FET cycle.

### Inconclusive ("No Result")



An "inconclusive" result means the genetic testing laboratory was unable to obtain a clear result from the embryo biopsy.

This occurs in approximately 2% of embryos, and does not necessarily indicate a problem with the embryo – it is simply a known limitation of testing a small amount of genetic material.

An embryo with inconclusive results may be able to undergo re-biopsy, in an effort to obtain a result.



### **Storage of Frozen Embryos After PGT**

NYULFC will continue to store all frozen embryos, regardless of PGT results, until the patient submits a completed consent for embryo disposition.

The first year of storage is included in standard cycle fees. Any embryos stored after the first year will incur annual storage fees for which the patient is responsible.

If a cycle does not produce any embryos that may be transferred based on PGT results (see table below), we recommend signing a disposition consent as soon as possible to avoid incurring future storage charges.

PGT Result	Maintained in Cryostorage until Disposition Consent Received	Option to Transfer for attempted pregnancy? (FET Cycle)	Option to re- biopsy embryo for re-testing? Additional fees apply.
Euploid (Normal)	<b></b>	<b></b>	X
Whole Aneuploidy (Abnormal)	Ø	X	×
Mosaic or Segmental Aneuploid	Ø	Genetic Counseling Required	X
Undiagnosed (Inconclusive)	☑	☑	V

### **Cryostorage with Embryo Options**

All frozen tissue is stored onsite at NYULFC.

All NYULFC patients will receive an account with our tissue management partner, Embryo Options.

Patients may log in to the Embryo Options portal at any time to manage their cryostored tissue (disposition consents, online education, bill pay, etc).

Pre-enroll for your Embryo
Options account at
<a href="https://eocryo.com/nyu-e9c5b">https://eocryo.com/nyu-e9c5b</a>
or by scanning this
QR code:



## Consent Forms Required for IVF

NYULFC partners with EngagedMD to deliver consent forms and video education modules via email for signature using DocuSign. You will receive your consent forms via email, and you will be required to verify your identity when you sign. You will be asked to scan your driver's license or passport using your phone. All consents must be complete prior to cycle start.



#### **IVF** Consent

PGT Consent (If Applicable)

#### **Embryo Cryopreservation Consent**

When completing this consent, you and your partner (if applicable), should discuss your options and come to an agreement about how to manage stored embryos.

#### **Embryo Transfer Consent (Fresh or Frozen)**

#### **Release for Frozen Sperm**

A release is required before a frozen sperm specimen can be thawed – this is required for either donor sperm or sperm from a male partner. If the sperm is from a male partner, the male must consent to its thaw and usage before thaw can occur.

#### **Donor Sperm**

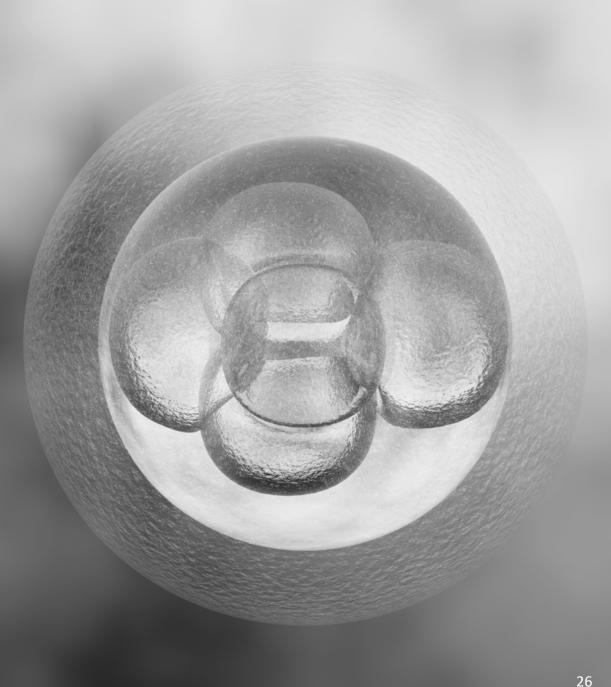
An additional consent is required for the use of donor sperm, if applicable.

#### **Embryo Disposal**



**Section 3: Embryo Transfer** 

Fresh ET. Frozen ET. **Pregnancy Monitoring.** 





# Progesterone for Partner Receiving Embryo Transfer

#### **Purpose:**

Progesterone is used to enhance the uterine lining's ability to sustain embryo implantation and pregnancy.

Progesterone is required to perform either a fresh or a frozen embryo transfer cycle.

#### Administration:

Intramuscular injections or vaginal suppositories.



Do not stop taking progesterone unless instructed to do so by a staff member at NYULFC.

#### **Possible Side Effects:**

Cramping, headache, nausea, breast tenderness, mood swings, or vaginal irritation.

#### **Please Note:**

Please notify your physician and nurse if you have any nut allergies.

# **Antibiotic for Male Partner** (if appropriate)

#### Purpose:

Antibiotics are used to protect the embryos from infections transmissible via sperm.

#### Type:

- Doxycycline
- Ciprofloxacin (prescribed for patients allergic to Doxycycline)
- Please inform your care team if you are allergic to Doxycycline, "Cipro," or other medications.

#### Administration:

Oral medication; take 100 mg twice per day (10-12 hours apart) for 10 days, beginning on the start day (Day 2 or Day 3) of the female partner's stimulation cycle. If providing a frozen specimen, a minimum of 5 days of antibiotics are required.

#### **Possible Side Effects:**

Photosensitivity, gastro-intestinal distress



### Medication Information & Resources

Cycle Type	Brand Names	Medication Type	Purpose	Training Video
FET	Estrace	Estrace is used to to build the uterine lining in preparation for embryo transfer. You will start Estrace tablets on Day 2 when instructed to do so by a nurse. You will continue this medication through the 10th week of pregnancy.		Partner receiving FET will be prescribed Estrace tablets on Day2; continue taking Estrace through 10 <sup>th</sup> week of pregnancy; Estrace is taken orally
FET	Crinone Suppository or  Progesterone in Sesame Oil or in Olive Oil	Progesterone is used to help support pregnancy. Progesterone is given in the form of a vaginal suppository or intramuscular injection to be started upon instruction when your embryo transfer has been scheduled by the embryology lab. You will continue this medication through the 10th week of pregnancy.		Crinone Suppository:  https://www.mdrusa.com/wp-content/uploads/Crinone- Instructions-1.pdf  Progesterone in Oil: https://www.youtube.com/watch?v=jr1Y5o7C6a4



### Fresh Embryo Transfer



If you are performing a fresh embryo transfer, your fresh embryo transfer will be scheduled for **5 days** after the oocyte retrieval.

The embryo selected for transfer is based on the embryo grading system used by the NYULFC embryology laboratory.





# Frozen Embryo Transfer ("FET")







During your IVF cycle, you will have the option to cryopreserve ("freeze") any embryos you may create.

You may wish to freeze embryos to enable biopsy for PGT, or you may simply need to freeze additional embryos created during your cycle for future embryo transfer during a subsequent cycle.

#### **Day 2 FET Start**

When you return for your FET, you will need to discuss your treatment plan with your physician prior to initiating the cycle. Your physician will provide guidance on your medication protocol and care plan, and will enter a "Cycle Reservation" for the (estimated) Day-2 of your next menses to begin your FET.

Insurance authorization, consent forms, and prerequisite blood tests may also be required. At your Day-2 appointment, we will perform bloodwork and a sonogram. Following your visit, a nurse will notify you if you are cleared to start.

#### **FET Cycles at NYULFC**

Patients at NYULFC undergo "Hormone-Replaced" or "Programmed" FET cycles. This enables predictability and scheduling safely for a successful cycle. Prior to your FET, you will need prescriptions for Estrace and Progesterone supplementation. After you are cleared to start, you will be instructed on how to begin Estrace.

You will be instructed to visit NYULFC around day 12 for another blood test and a sonogram. A nurse will call you with instructions regarding the start date for Progesterone, instructions for the embryo transfer, and the date of your scheduled FET.

#### **Embryo Thaw & Transfer**

On the date of your FET, the embryo selected for thaw and transfer will be based on the following criteria in this order:

- 1. Results of PGS/PGD testing (if applicable)
- 2. Best-quality embryo as graded by the laboratory (Information about embryo grading is provided on a handout in your orientation materials)



# Fresh vs. Frozen Embryo Transfer

#### Day 0

Egg Retrieval. Sperm Preparation. Insemination (or ICSI)

#### Day 1

Fertilization Check.
Post-Op Call with
Fertilization Results.

#### Fresh Embryo Transfer Cycle

#### Day 1

Follow instructions for Progesterone administration

#### Day 5

Best quality embryo selected for transfer; embryo transfer occurs

#### Day 8

Call from Genetics to inform you how many additional embryos (if any) were frozen

#### Day 14

Pregnancy test to determine success (9-days post transfer)

#### **PGT & Frozen Embryo Transfer Cycle (FET)**

#### <sup>l</sup>Day 3

Embryologist will create opening in outer shell (zona ablation)

#### Days 5-7

Biopsy is performed on all suitable blastocysts, which are then frozen pending genetic results

#### Day 8

Call from nursing to inform you how many (if any) embryos were biopsied and frozen.

#### Days 15-18

Call from nursing within 7-10 days after biopsy to inform you of PGT-A results (2-3 weeks for PGT-M/SR)

#### Date TBD

You can schedule your FET cycle after results are received; often at Day 2 of your next menses



# Fresh or Frozen Embryo Transfer Procedure



The selected embryo is transferred directly into the uterus during a **5-15 minute procedure**; sedation is not usually required and there is no recovery period.

You will be allowed to get up and depart immediately after the embryo transfer procedure.

### **Embryo Grading**



How does the embryology laboratory determine which embryo is best to transfer?

Information about embryo grading is provided on a handout in your patient orientation packet.





### Single Euploid Embryo Transfer (SEET)

NYULFC strongly encourages the transfer of a **single**, **chromosomally normal (euploid)** embryo to increase the chance of a healthy pregnancy and live birth.



#### **Risks of Multiple Gestation Pregnancies**

The risk of perinatal death in twins is **4 times** higher than for singletons. The risk of perinatal death in triplets is **10 times** higher than for singletons.

Other risks associated with twin pregnancies include

- higher likelihood to develop pre-eclampsia
- higher likelihood to be hospitalized during pregnancy
- higher likelihood to have preterm labor (average gestation for twins: 35 weeks)
- more likely to require a Caesarian section
- stress on parents and siblings; divorce rate is higher in parents of twins
- twins have a 7 times higher rate of Cerebral Palsy
- rate of learning disability is increased for multiples, even near-term
- long-term costs associated with minor and major handicaps



# Luteal Monitoring (Post-Transfer)

#### Progesterone Blood Test

You will have a progesterone blood test on the day of your embryo transfer.

#### Pregnancy Blood Test

**9 days** after the embryo transfer, you will visit NYULFC for a pregnancy blood test (mandatory).

If positive, you will be asked to return within 1-week for a repeat blood test.

### Pregnancy Ultrasound

**3 weeks** after the embryo transfer, assuming the pregnancy test is positive, you will return to NYULFC for a pregnancy ultrasound.

### Transfer to OB

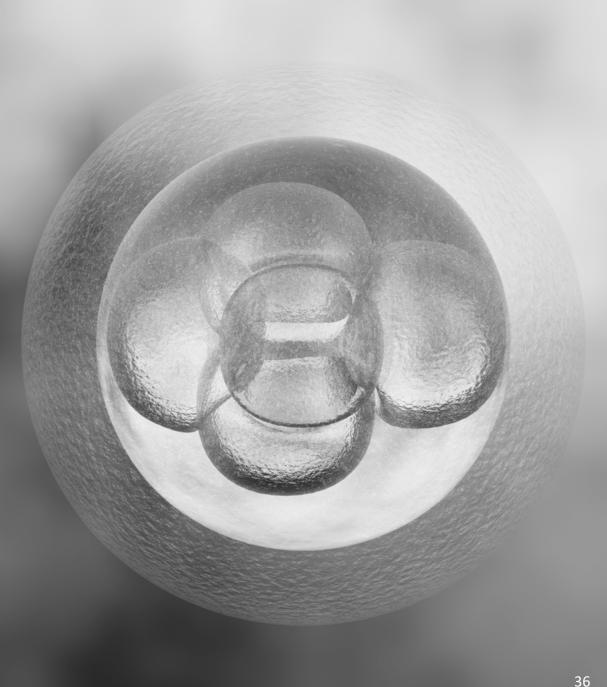
After a fetal heartbeat is documented during an ultrasound, you may transfer your care to the obstetrician of your choice.





**Section 4: Wellness** 

**Wellness & Support** for NYULFC Patients





### **Mind & Body Support**

### **Acupuncture Services**



Acupuncture services are provided by Lara Rosenthal, L.Ac.

Acupuncture is offered onsite at NYULFC 4 days per week.\*

Acupuncture can be safely used prior to and concurrently with fertility medications and procedures.

If you are interested in acupuncture for fertility, please call 212-807-6769.

(\*This service is temporarily suspended due to COVID-19.)

#### Mind-Body Support Group



NYULFC patients have access to a Mind-Body support group provided by Helen Adrienne, LCSW, BCD.

Mind-Body support is offered as a series of individual classes, a one-day group program, or on an individual consultation basis.

The main goal of Mind-Body support is to help patients realize that while they cannot control infertility, they can control how they navigate it.

If you are interested in Mind-Body support, please call 212-758-0125.

### Yoga for Fertility



Yoga for Fertility is provided by Barrie Raffel.

Yoga for Fertility is safe to practice at any time during your fertility treatment cycle.

If you are interested in Yoga for Fertility, please contact Barrie at <a href="mailto:barrieraffel@earthlink.net">barrieraffel@earthlink.net</a>.

#### Nutrition for Fertility



Nutrition for Fertility is provided by dietitians at Rooted Wellness.

Nutrition for Fertility can be started at any time during your fertility treatment cycle.

If you are interested in Nutrition for Fertility, please email <a href="mailto:sarah@rootedwellness.com">sarah@rootedwellness.com</a> (Sarah Rueven) or <a href="mailto:claire@rootedwellness.com">claire@rootedwellness.com</a> (Claire Virga).



### **Psychological Support Services**



NYULFC patients have access to onsite and offsite psychologists, all of whom have decades of experience helping couples to navigate the stressors created throughout the fertility treatment journey.

Consultations, treatment, and support sessions are available for couples and/or individuals.

Consultations are mandatory for all patients using donor gametes.

If you are interested in psychological support, please call 212-263-0054 for information or to book your appointment.



# Information & Support

We recognize that you have a choice in care providers, and we are committed to providing compassionate, individualized, and cost-effective service.

We're happy to go at your pace and answer any questions you may have. Ask questions during your visits, or call us at 212-263-8990. We're here for you.

Information resources are available online at

- ASRM.org
- · Resolve.org
- SART.org
- cdc.gov/art

Visit our website at <a href="https://www.FertilityNY.com">www.FertilityNY.com</a> for more information, including a **Patient Resources section** with patient forms, orientation slides, and Injection Training videos.

# Issues to Consider Before Beginning an Egg Thaw

#### **Cryopreservation of Additional Embryos**

- The decision to cryopreserve embryos is an important one that should be considered carefully between patient and partner (if applicable) before creating embryos.
  - Embryo custody in the event of death or divorce
  - Embryo disposition: Discard? Donate to Research?

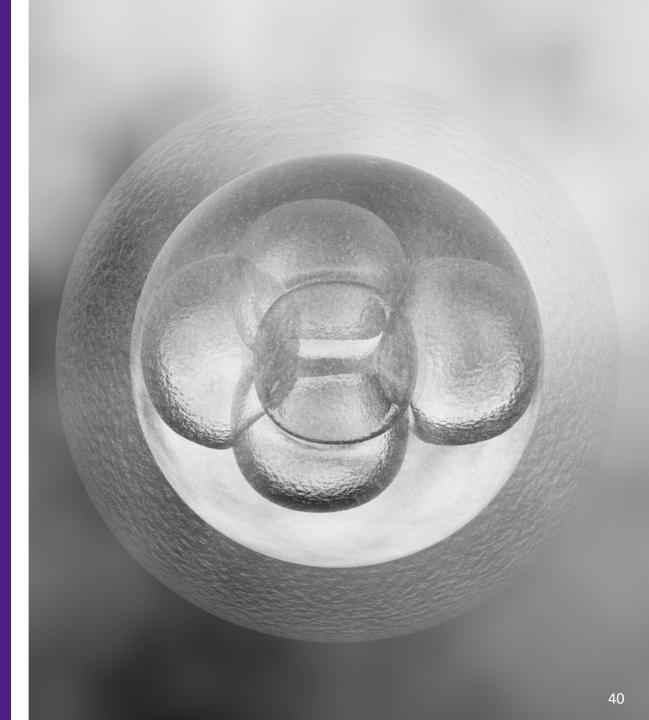
#### **Number of Embryos to Transfer**

- Multiple pregnancy and associated risks; elective reduction of multi-fetal pregnancy
- Pre-term labor and Cesarean delivery; prematurity



**Section 5: Research** 

Research Studies & Participation Options







#### Research Studies at NYULFC

# NYULFC is dedicated to the mission of advancing science and improving healthcare through scientific discovery.

As a leading center in academic research, our faculty and staff are actively engaged in multiple research studies at any time which we hope will advance and improve infertility benchmarks and fertility treatment options.

The purpose of our sample collection and repository is to enable the research use of superfluous biospecimens, which are not needed for diagnostic or clinical use, and which would otherwise be discarded

**Participation in research studies is voluntary**, which means it is your choice if you would like to participate or not. Your decision as to whether or not to participate will not affect the care you receive during your treatment cycle.

Providing consent for research does not impact your medical treatment in any way. Research consents must be witnessed by an NYU Langone Fertility staff member.

Our research studies follow a transparent process of independent Institutional Review Board (IRB) evaluation and careful informed consent. The IRB reviews all proposed studies and ensure that they are conducted in a manner which safeguards and promotes the health and welfare of subjects.





#### Research Studies at NYULFC

The goal of our research is to optimize fertilization, embryo development and culture, in vitro maturation, cryopreservation, understanding egg and embryo viability as well as other clinical indications of infertility.

Our research studies use biological material (procedural by-products, non-viable specimens or materials deemed non-usable to create live-born pregnancies) from your cycle that would normally be discarded during the routine course of your cycle.

**Discarded biological materials may include** collection of minimal residual sample from sperm preparations, granulosa cells, cumulus cells, fluids from the ovarian follicles that are harvested during oocyte retrieval, immature oocytes, abnormally fertilized oocytes or embryos of such poor quality that are not suitable for transfer.

**Tissue donated to research is never transferred to human subjects.** NYULFC will only collect, use, and store de-identified specimens that are donated for research. Donated research specimens – including DNA material – will not be used to identify patients and will be destroyed once research has been done.

Research conducted using these otherwise discarded biological materials will help us learn more about factors of fertility and infertility in order to better understand various reproductive disorders.

If you have questions about the research or your participation, please e-mail the senior clinical research coordinator at

Fang.Wang@nyulangone.org



### Questions?







E: Haley.Penny@nyulangone.org

T: 212-263-8990

F: 212-263-7853

