

# Prequel<sup>®</sup>

Prenatal Screen



## We help you care for *everybody*

Guide your patients to manage their  
pregnancies using genetic insights



**Myriad**  
genetics

Health. Illuminated.<sup>®</sup>

# Prequel<sup>®</sup> with AMPLIFY<sup>™</sup> enriches fetal fraction for everybody<sup>1</sup>

AMPLIFY technology selectively enriches the fetal cell-free DNA (cfDNA) signal for all patients, and most dramatically for patients who traditionally have low fetal fraction on standard non-invasive prenatal cfDNA screens due to high BMI and/or aneuploidy.<sup>1</sup>

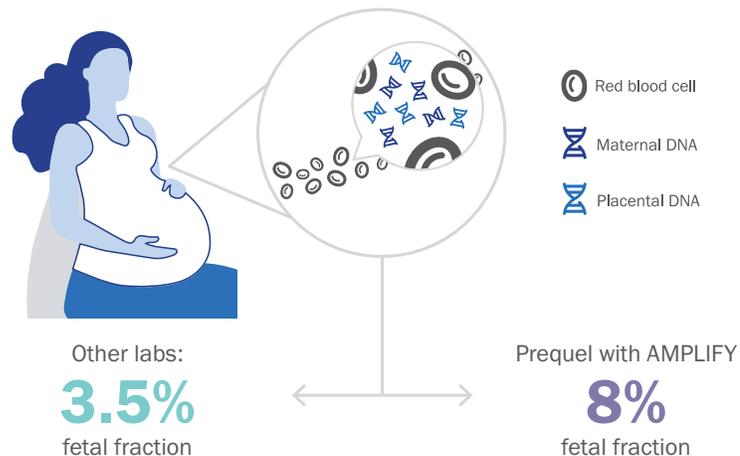
## What is Prequel?

Prequel provides pregnant patients with early genetic insights into the baby's development and the health of the pregnancy. This prenatal cfDNA screen can assess if a pregnancy is at an increased risk for a wide variety of chromosomal conditions like Down syndrome, trisomy 18, or trisomy 13.

## Why Prequel?

Prequel with AMPLIFY technology selectively enriches fetal fraction (FF) by 2.3X on average for every patient, even patients with high BMI, increasing confidence in the results and reducing the chance of a sample failure.<sup>2,3</sup>

In this scenario, which prenatal screen would you choose to provide the best care possible for this patient?



Less than 4% FF presents a sample failure risk, which may prompt a redraw

AMPLIFY increases FF by 2.3X on average, delivering results to 99.9% of all patients at 10 weeks, even those with high BMI<sup>4</sup>

## Prequel Screening Options

### Standard panel

#### Common Aneuploidies

- Trisomy 21 (Down syndrome)
- Trisomy 18 (Edwards syndrome)
- Trisomy 13 (Patau syndrome)

### Opt-in

#### Sex Chromosome Analysis

- Monosomy X (Turner syndrome)
- Klinefelter syndrome (XXY)
- Trisomy X (XXX)
- XYY syndrome
- Male (XY)
- Female (XX)

### Opt-in

#### Microdeletions

- 22q11.2 deletion (DiGeorge syndrome)
- 1p36.1 deletion syndrome
- 15q11 deletions (Angelman or Prader-Will syndrome)
- 4p deletion (Wolf-Hirschhorn syndrome)
- 5p deletion (Cri-du-Chat syndrome)

### Opt-in

#### Expanded Aneuploidy Analysis (EAA)

Expands aneuploidy analysis to include all 22 autosomes. Associated conditions include:

- Placental insufficiency (e.g. growth restriction, stillbirth)
- Uniparental disomy syndromes (e.g. Prader-Will, Beckwith-Wiedemann)
- Fetal syndromes (e.g. trisomy 8, trisomy 22)

# Timely, reliable answers for everybody means better care



50% of female patients present with high BMI<sup>2</sup>

Patients with high BMI may have lower fetal fraction in prenatal cfDNA screening<sup>3</sup>



Up to 24.3% of cfDNA non-invasive prenatal screen failures are due to reduced fetal fraction<sup>4</sup>



**Sample failures may mean:**<sup>5,6</sup>

- Increased patient anxiety
- Decreased time to prepare in case of high-risk results
- Increased turn-around time
- Increased invasive diagnostic procedures



**Prequel® Prenatal Screen with AMPLIFY™ Technology**

Enables results for **99.9% of all patients** regardless of BMI<sup>1</sup>



**Screen ALL patients at 10 weeks, even those with high BMI<sup>3,7</sup>**

# Lower failure rate gives everybody more time to prepare

Patient case study*	Other labs <sup>‡</sup>	Prequel® Prenatal Screen
 <p><b>Patient details:</b></p> <ul style="list-style-type: none"> <li>• Age: 33</li> <li>• BMI: 40+</li> <li>• First pregnancy</li> </ul>	<p><b>Step 1</b></p> <ul style="list-style-type: none"> <li>• Non-invasive prenatal screen offered at 13 weeks to reduce chance of test failure</li> </ul>	<ul style="list-style-type: none"> <li>• Prequel with AMPLIFY™ offered at 10 weeks</li> </ul>
	<p><b>Step 2</b></p> <ul style="list-style-type: none"> <li>• Sample fails with FF of 2.3%</li> </ul>	<ul style="list-style-type: none"> <li>• Patient receives results (FF = 11.3%) 7-10 days later</li> <li>• Result indicates high risk for trisomy 18</li> </ul>
	<p><b>Step 3</b></p> <ul style="list-style-type: none"> <li>• Patient undergoes redraw</li> </ul>	<ul style="list-style-type: none"> <li>• Genetic counseling is recommended.</li> <li>• CVS at 12 weeks gestation confirms trisomy 18 diagnosis</li> </ul>
	<p><b>Step 4</b></p> <ul style="list-style-type: none"> <li>• Sample fails again with FF of 2.4%</li> </ul>	
	<p><b>Step 5</b></p> <ul style="list-style-type: none"> <li>• After multiple office calls, patient undergoes diagnostic procedure</li> <li>• Trisomy 18 diagnosis at 16 weeks gestation</li> </ul>	

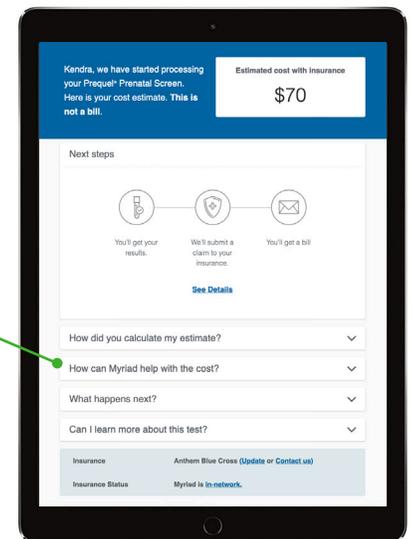
## A support team of board-certified genetic counselors behind every test

We're here for you every step of the way, using our team's decades of genetic expertise to help both you and your patients get the most out of every test.

## Making genetic insights affordable for everybody

Myriad Genetics will contact you directly with a cost estimate via email and/or text.

Estimates take into account a patient's insurance plan, how much they have paid toward their deductible, any copays or coinsurance, and their financial situation.



\*Case studies are illustrative.

‡Since BMI is also closely correlated with certain ancestries,[2] delaying screening according to a patient's BMI to ensure a higher fetal fraction means some patients have less time to consider pregnancy management options in the case of a high-risk result. This results in inequitable care.

1. Welker et al. High-throughput fetal fraction amplification increases analytical performance of noninvasive prenatal screening. *Genet Med* 23, 443–450 (2021). 2. Deputy NP, Dub B, Sharma AJ. Prevalence and Trends in Prepregnancy Normal Weight - 48 States, New York City, and District of Columbia, 2011-2015. *MMWR Morb Mortal Wkly Rep.* 2018;66(51-52):1402-1407. Published 2018 Jan 5. doi:10.15585/mmwr.mm665152a3. 3. Muzzey D, Goldberg JD, Haverty C. Noninvasive prenatal screening for patients with high body mass index: Evaluating the impact of a customized whole genome sequencing workflow on sensitivity and residual risk. *Prenat Diagn.* 2020;40(3):333-341. doi:10.1002/pd.5603. 4. Yared E, et al. Obesity increases the risk of failure of noninvasive prenatal screening regardless of gestational age. *Am J Obstet Gynecol.* 2016 Sep;215(3):370.e1-370.e6. 5. Artieri CG, Haverty C, Evans EA, et al. Noninvasive prenatal screening at low fetal fraction: comparing whole-genome sequencing and single-nucleotide polymorphism methods. *Prenat Diagn.* 2017;37(5):482-490. doi:10.1002/pd.5036. 6. Van Schendel RV, et al. Women's Experience with Non-Invasive Prenatal Testing and Emotional Well-being and Satisfaction after Test-Results. *J Genet Couns.* 2017 Dec;26(6):1348-1356. doi: 10.1007/s10897-017-0118-3. Epub 2017 Jun 30.PMID: 28667567. 7. Hancock S, Ben-Shachar R, Adusei C, et al. Clinical experience across the fetal-fraction spectrum of a non-invasive prenatal screening approach with low test-failure rate. *Ultrasound Obstet Gynecol.* 2020;56(3):422-430. doi:10.1002/uog.21904.