

Normal Physiology Reveals the Disorder. Social Normalization Hides It.

Rethinking von Willebrand Disease in Women.

A decorative graphic consisting of several overlapping, wavy lines in a reddish-pink color, spanning the width of the slide.

A clinical explainer merging hematology, gynecology, and lifecycle-aware care.



Inherited
Biology

+



Reproductive
Physiology

+



Social
Interpretation

=

**The VWD
Experience**

Male Exposure
Pathway

Childhood
bruising

Dental
extraction

Surgery

Female Exposure
Pathway

Ovulation

Ovulation

Ovulation

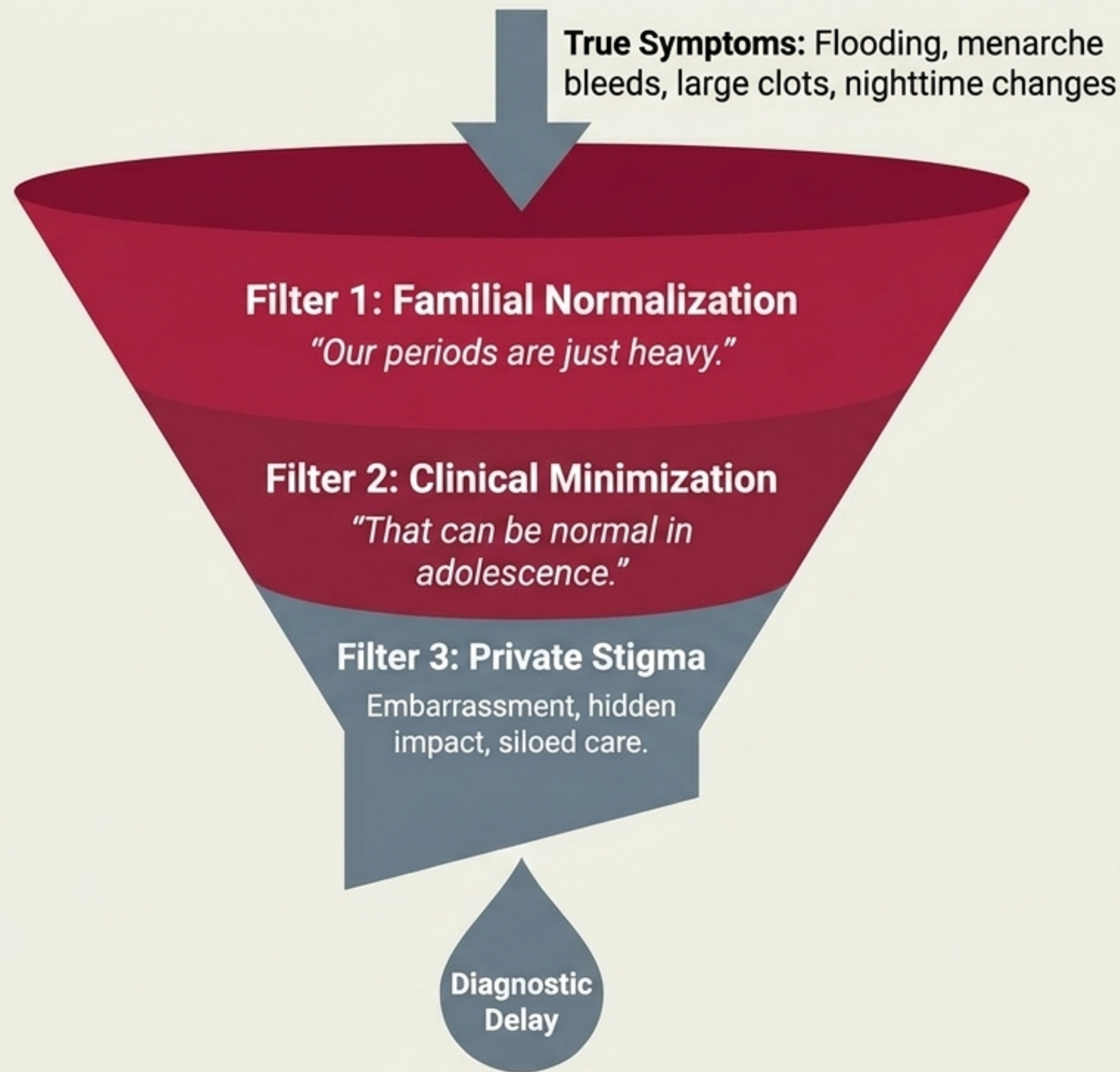
Menarche

Monthly Menstruation

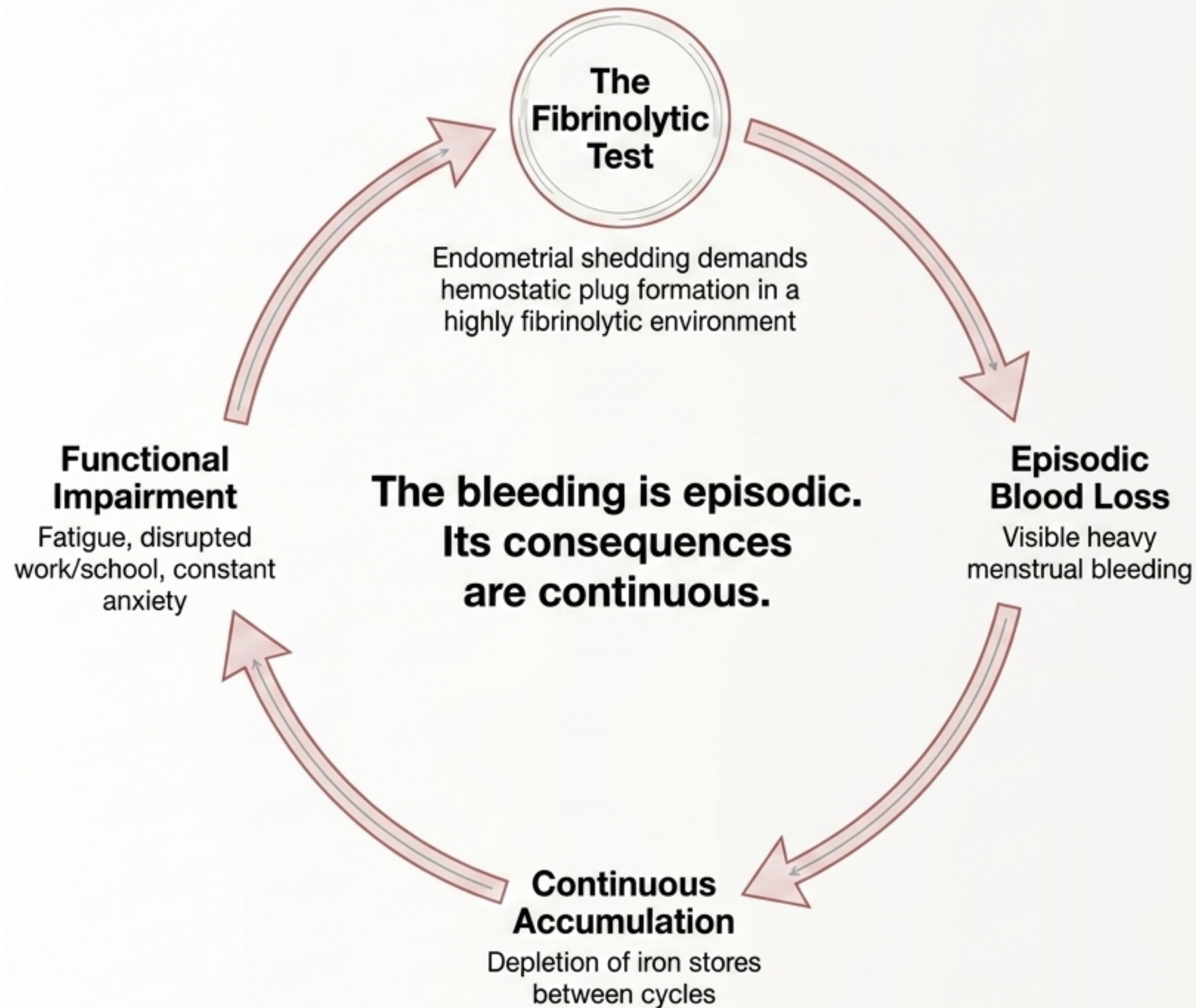
Childbirth

Postpartum

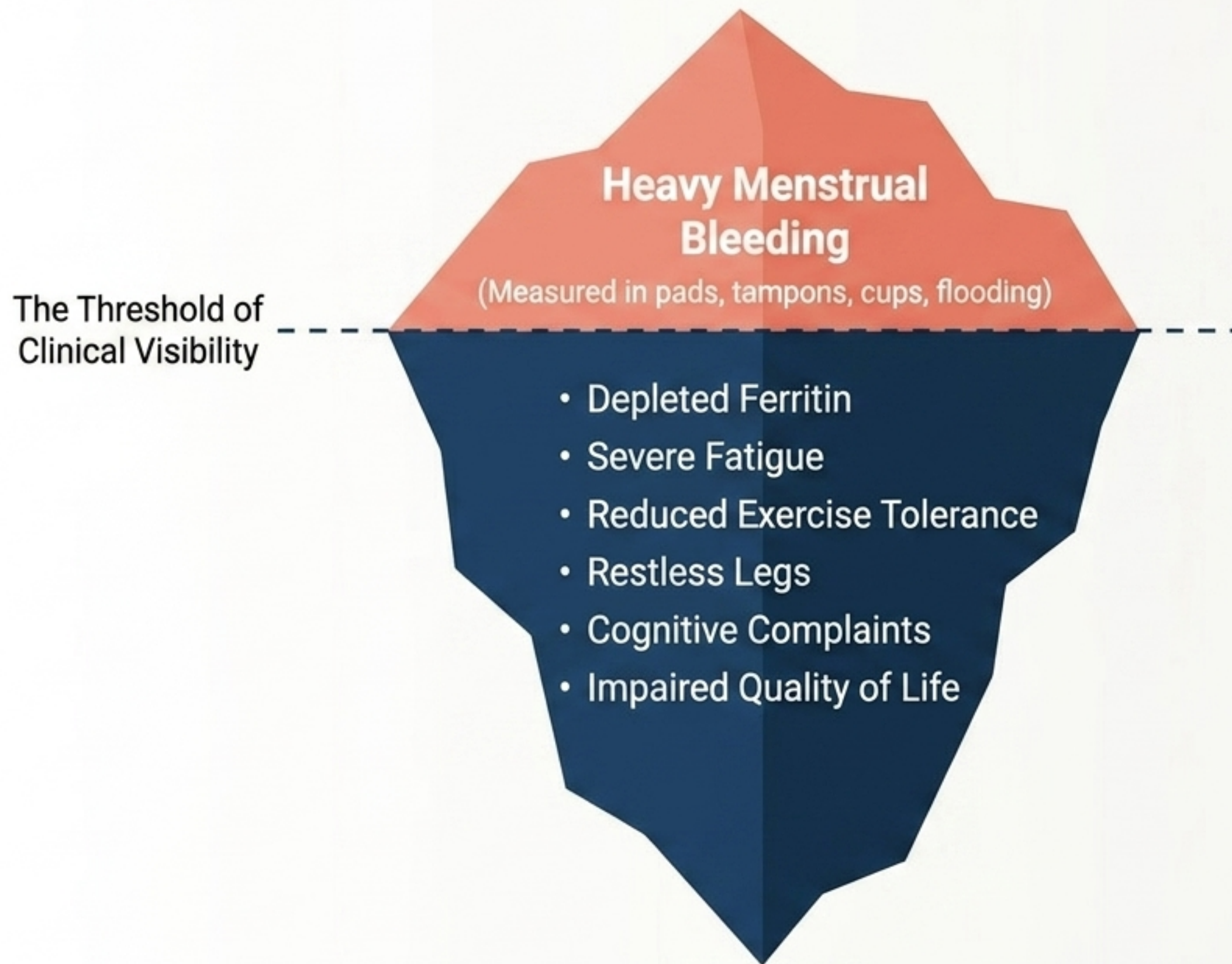
“The inherited defect is not inherently female. The hemostatic challenges often are.”



"During the delay, the patient continues to bleed, lose iron, adapt her life, and sometimes undergo invasive treatment without a unifying diagnosis."



VWD in women is more than heavy periods. Ovulation, cyst rupture, and gynecologic surgery all create additional high-stakes hemostatic challenges.

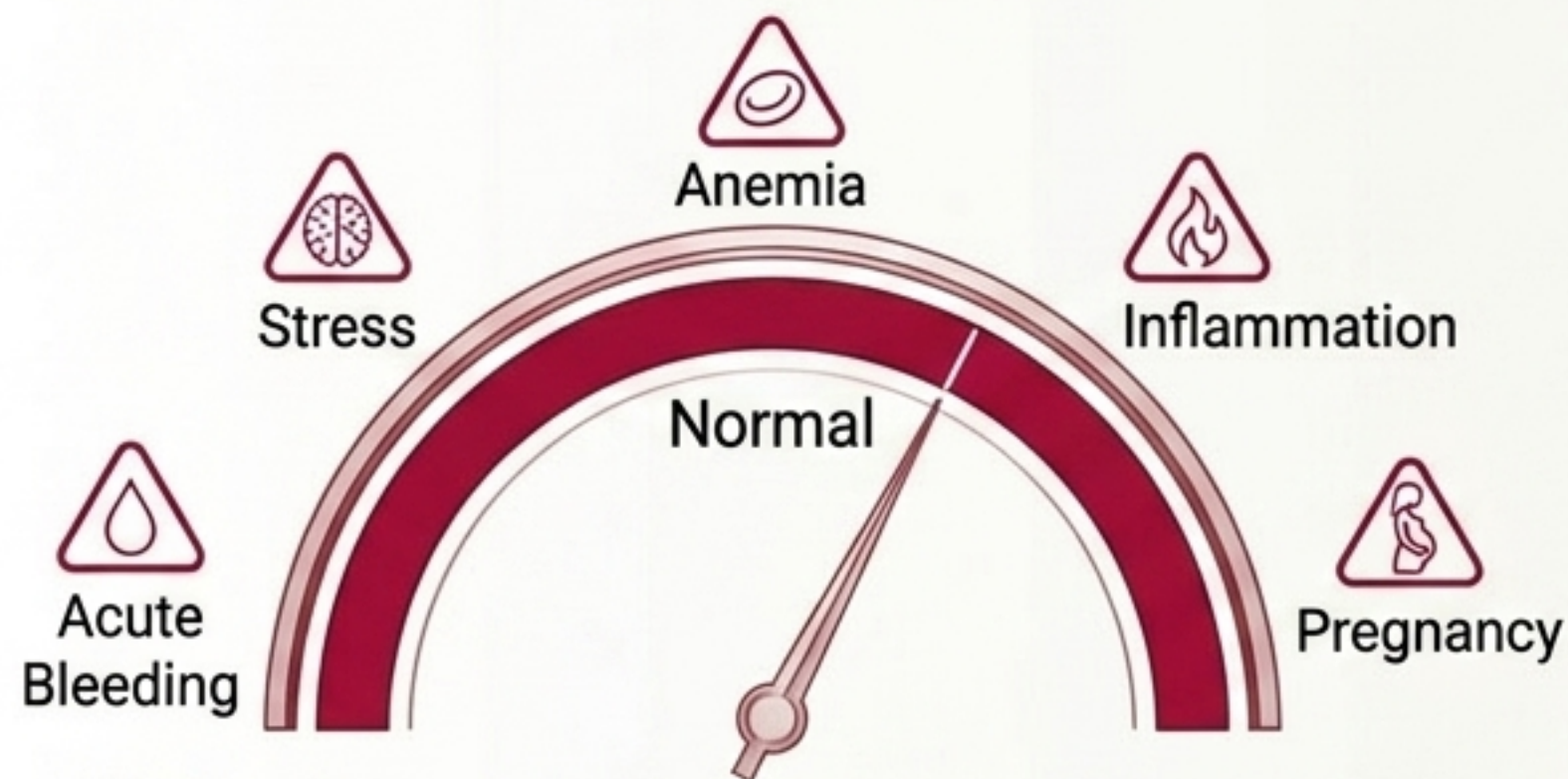


Iron deficiency without anemia still impairs function. A normal hemoglobin does NOT mean normal iron.

Ferritin is part of the bleeding story. It provides objective evidence of cumulative physiologic consequences even when a patient normalizes her bleeding volume.

The Context-Aware Blood Draw

The False Normal

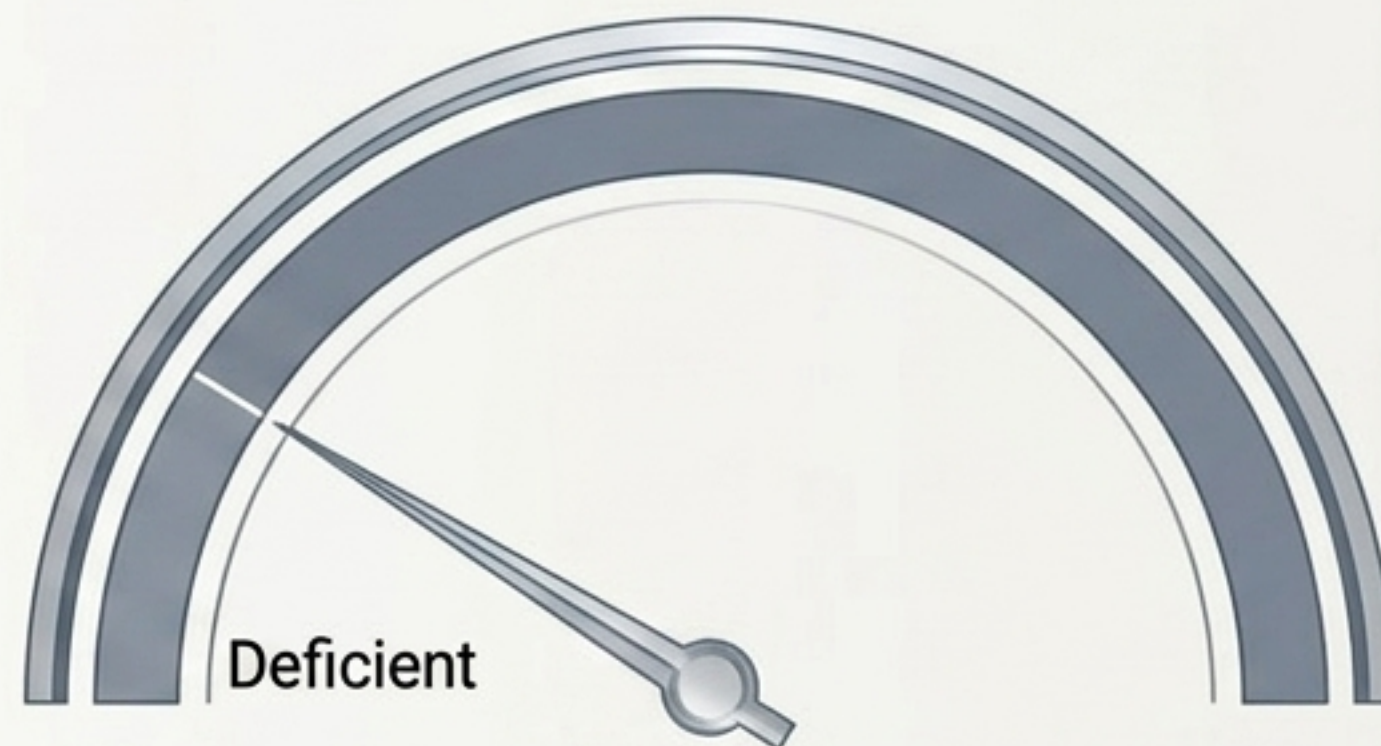


VWF is an acute-phase reactant. Physiologic stress artificially inflates the baseline.

The Initial Panel

- ✓ VWF antigen
- ✓ Platelet-dependent VWF activity
- ✓ Factor VIII activity

The True Baseline



Must re-test when the patient has returned to baseline health.

**A normal PT is expected in VWD.
A normal aPTT does NOT
exclude a bleeding disorder.**

The Site of Bleeding

Why is this site bleeding?

Pathologies:

- Fibroids, polyps, endometriosis, adenomyosis, ovulatory dysfunction.

Risk of Silo:

- Treating the uterus via repeated hormonal changes, ablations, or hysterectomies without considering systemic hemostasis.

The Systemic Defect

Why is this patient unable to stop it normally?

Pathologies:

- VWD, platelet dysfunction, other inherited bleeding disorders.

Risk of Silo:

- Treating the blood disorder but ignoring underlying structural uterine pathology.

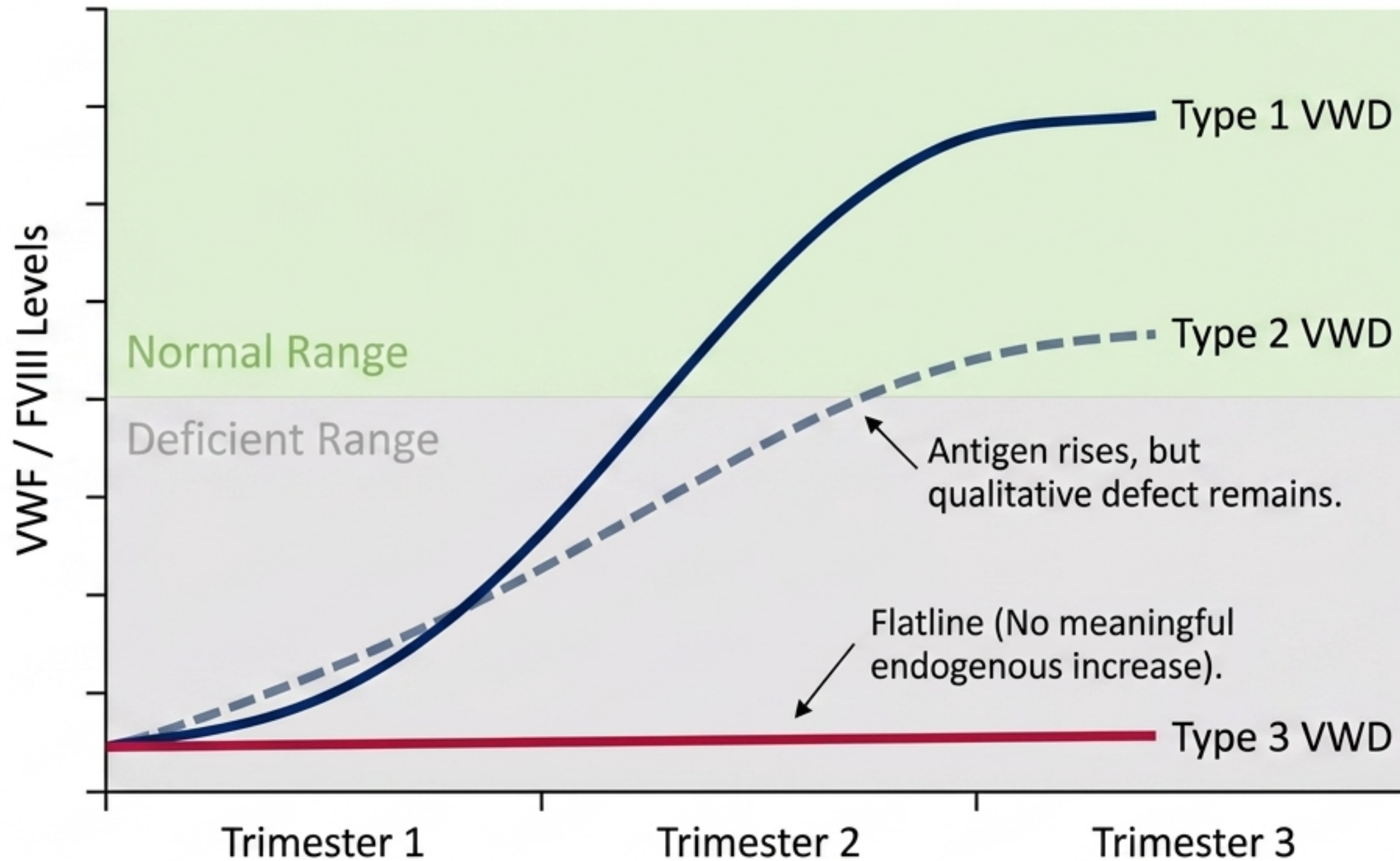
The uterus may be the site of bleeding. VWD may be the reason the bleeding persists. Both require integrated attention.

Reproductive Treatment Alignment

Goal: Desires Contraception & Bleeding Control	Hormonal Therapy (Pills / Levonorgestrel IUS) Primary recommendation. Controls bleeding, provides contraception.	Tranexamic Acid Useful non-hormonal adjunct to counteract high endometrial fibrinolysis.
Goal: Desires Pregnancy	Tranexamic Acid Preferred frontline recommendation over desmopressin.	Desmopressin Conditional use. Ineffective in Type 3, generally avoided in Type 2B.

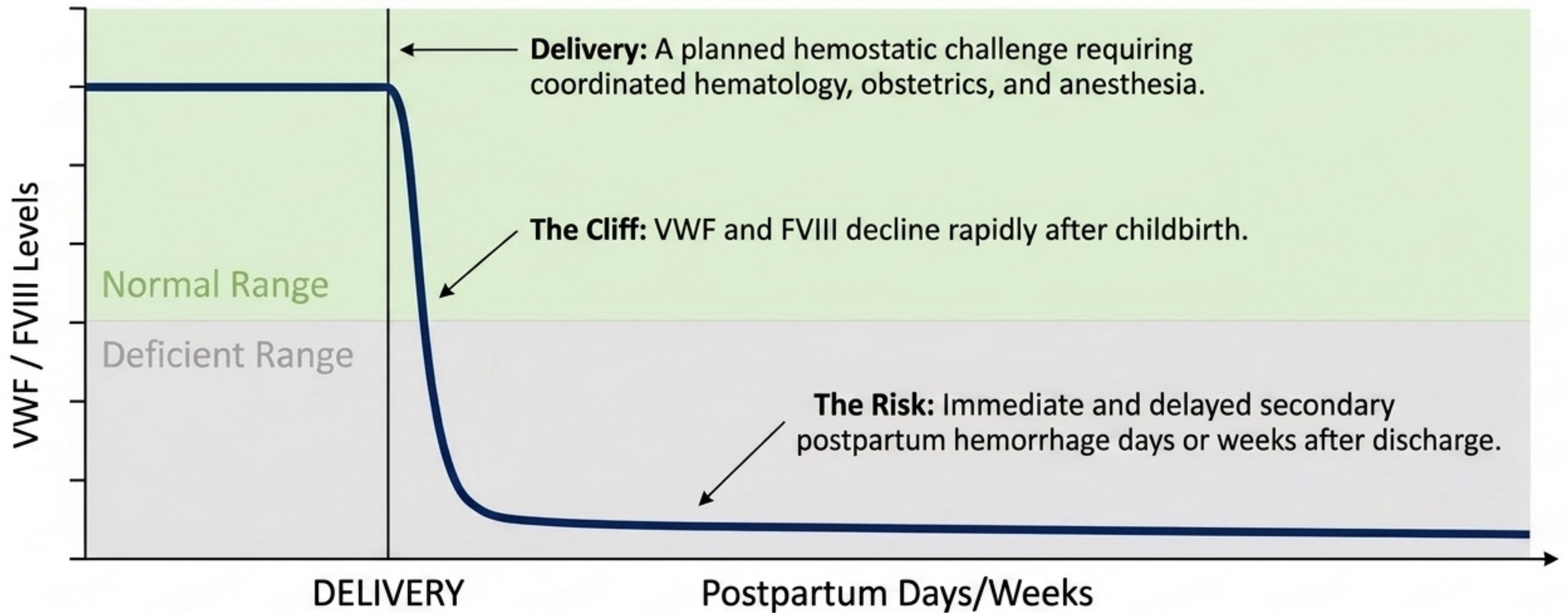
“Women’s-health care in VWD should not reduce the patient to menstrual control. The aim is to align therapy with reproductive goals.”

Pregnancy: The False Cure



Pregnancy changes the hemostatic reserve and the interpretation of labs.

A normal 3rd-trimester result is essential for delivery planning, but it normalizes the number without curing the disorder.



Guideline Note: Postpartum tranexamic acid is suggested for women with type 1 VWD or low VWF to bridge this vulnerable period. **Delivery is a moment. Postpartum risk is a period.**

Reproductive Years

Post-Menopause

Menopause removes the recurrent menstrual stress test, and iron balance often improves.

VWF Levels in Aging

- VWF naturally rises with age. Do not automatically erase a historical diagnosis just current levels reach the reference range.

Postmenopausal Bleeding

- Postmenopausal bleeding must be evaluated anatomically for malignancy, not automatically attributed to VWD.

Emerging Hemostatic Challenges

- New hemostatic challenges emerge: GI angiodysplasia, surgeries, cardiovascular disease, and anticoagulant therapy.

Menopause may end menstrual bleeding. It does not end women's health in VWD.

Reflection Case Study

- 16-year-old girl. Heavy menstrual bleeding since menarche.
- Changes protection every 1-2 hours, nighttime changes, passes large clots.
- Stopped playing soccer due to fatigue.
- Hemoglobin: Normal. Ferritin: 8 $\mu\text{g/L}$.
- Mother reports “the same kind of periods” and had a hysterectomy at age 38.

Clinical Synthesis

Question: What is the most important abnormality in this case?

Answer: It is not just the ferritin or the bleeding. It is the fact that each generation has interpreted the preceding generation’s abnormal bleeding as normal.

Action: Do not just prescribe iron. Do not just order a VWF panel. Understand why normal female physiology produced a life organized around blood loss.

The Integrated Care Blueprint

1.

Control the Bleeding

Use hormonal therapy, tranexamic acid, or desmopressin aligned with the patient's reproductive goals (contraception vs. pregnancy).

2.

Investigate the Site

Answer both "Why is the uterus bleeding?" and "Why can't systemic hemostasis stop it?"

3.

Identify & Treat Iron Deficiency

Track ferritin, not just hemoglobin. Treat the hidden systemic burden.

4.

Plan Before the Next Challenge

Anticipate the postpartum cliff, plan for surgeries, and recognize that normal physiology will test the patient again.

Women's-health care in VWD crosses biological and clinical boundaries.
Change what happens next.