Our multidisciplinary team is leading the field of fetal diagnosis and therapy with cutting-edge genomic sequencing and in utero interventions for genetic diseases underlying many causes of non-immune hydrops fetalis (NIHF).

Hydrops Fetalis

Hydrops is a serious condition that affects up to 1 in 1,700 pregnancies.

We can identify a genetic cause for hydrops in 1 out of 3 pregnancies that are not explained by standard testing.

We have sequenced more than 250 fetuses with hydrops fetalis.

EXCELLENCE IN HYDROPS CARE AT UCSF

UCSF is the premier center for the diagnosis and management of pregnancies with hydrops fetalis. We have decades of experience in prenatal and neonatal care for NIHF and offer cutting-edge genomic testing, fetal imaging, comprehensive prenatal and neonatal care, and access to novel in utero treatments. Our approach to care is multidisciplinary, with internationally recognized experts in maternal-fetal medicine, genetics, radiology, pediatric surgery, neonatal medicine, bioinformatics, bioethics, pediatric cardiology, social work, palliative care and many other subspecialties working together to provide the most comprehensive and individualized care for each patient. Standard testing identifies a genetic explanation for NIHF in up to 25 percent of cases; our detailed evaluations find the cause in an additional one-third of cases that remain unsolved by standard tests.

WHAT IS HYDROPS FETALIS?

Hydrops fetalis is a condition in pregnancy marked by abnormal collections of fluid in the fetus. It carries significant risks of stillbirth during the pregnancy, as well as early delivery, serious illness and death for the newborn, and a maternal complication called mirror syndrome, in which the mother experiences symptoms that mimic the fetus's condition.

Hydrops can develop at any point in pregnancy and can result from immune causes such as blood type incompatibilities or non-immune causes such as genetic abnormalities, birth defects or viral infections. While most cases of hydrops today are non-immune hydrops fetalis, our multidisciplinary team provides expert care for all types of the condition.

The cause of hydrops in most affected pregnancies is not diagnosed by standard testing. Our comprehensive approach, which includes detailed imaging and genome sequencing, can determine the cause in many of these unexplained cases. This, in turn, leads to improved prenatal care and counseling, opportunities for in utero interventions in some cases, and better preparations for care of the newborn.

MORE →
WHY REFER TO UCSF?

- **Expert care**: Our multidisciplinary team works closely and collaboratively to improve the diagnosis, treatment and outcomes for hundreds of pregnancies affected by hydrops. Our team is leading the field of fetal diagnosis and therapy with cutting-edge genomic sequencing and in utero interventions for genetic diseases underlying NIHF.

- **Personalized genomics**: The UCSF Genomic Medicine Laboratory has extensive experience with genes involved in the development of hydrops and works closely with our clinical team and an expert, multidisciplinary panel to report the most accurate results of genome sequencing for each pregnancy. We further provide personalized genetic counseling to discuss the testing and how the results may affect current and future pregnancies.

- **Detailed prenatal imaging**: Our internationally recognized experts in maternal-fetal medicine, radiology and pediatric cardiology use advanced imaging tools to identify clues that may reveal the reason for hydrops.

- **State-of-the-art fetal procedures**: The Fetal Treatment Center at UCSF offers a full range of clinically indicated fetal procedures for hydrops, including fetal shunts, laser therapy and in utero transfusions, performed by experienced clinicians.

- **Novel fetal therapies**: The Fetal Treatment Center is home to clinical trials for novel fetal therapies designed to improve the in utero and post-delivery outcomes for pregnancies affected with hydrops fetalis. Clinical trials include:
  - In utero stem cell transplantation (Clinical Trial: NCT02986698) for alpha thalassemia major
  - Enzyme replacement therapy (Clinical Trial: NCT04532047) for a group of genetic diseases referred to as inborn errors of metabolism

- **Comprehensive perinatal care**: Our multidisciplinary team prepares individualized, comprehensive perinatal care plans for each patient. These plans may include imaging surveillance during pregnancy, fetal interventions, special considerations for delivery, subspecialists needed at delivery, neonatal treatments and more.

- **Mental health and emotional support**: Patients have access to social work and palliative care providers who are specially trained to care for families with difficult pregnancies and perinatal loss.

OUR TEAM

- **Teresa Sparks, MD, MAS**
  Perinatologist and clinical geneticist
  Co-Director, Hydrops Center of Excellence

- **Mary Norton, MD**
  Perinatologist and clinical geneticist
  Co-Medical Director, Fetal Treatment Center

- **Rebecca Freeman, MS, LCGC**
  Genetic counselor

- **Juan Gonzalez-Velez, MD, PhD**
  Perinatologist
  Chief, Division of Maternal-Fetal Medicine

- **Kyle Heraty, MS, LCGC**
  Genetic counselor

- **Billie Lianoglou, MS, LCGC**
  Genetic counselor

- **Tippi MacKenzie, MD**
  Fetal and pediatric surgeon

- **Janice Scudmore, NP**
  Nurse practitioner
  Manager, Fetal Treatment Center

- **Jessica Van Ziffle, PhD**
  Director, Genomic Medicine Laboratory

LOCATIONS

- **UCSF Betty Irene Moore Women’s Hospital**
  1855 Fourth St., Second Floor
  Room A-2432
  San Francisco, CA 94158

- **UCSF Benioff Children's Hospital Oakland**
  744 52nd St., Third Floor
  Oakland, CA 94609

INFORMATION / REFERRALS

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