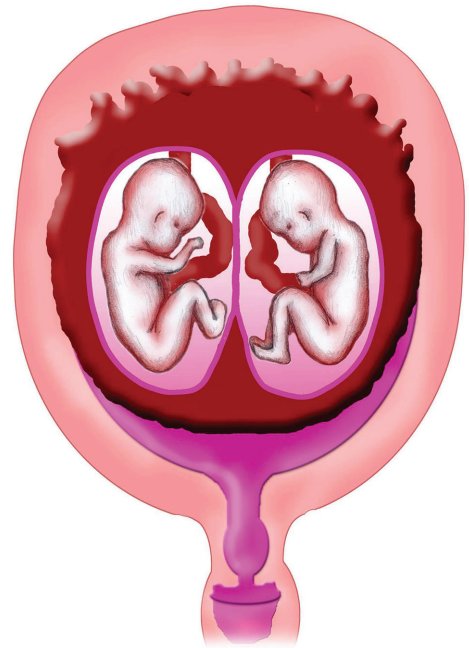


# Twin to twin transfusion syndrome (TTTS)

## What It Is:

Twin to twin transfusion syndrome is a disease that occurs with identical twins that share the same placenta (monochorionic placenta). Abnormal blood vessels within the placenta form connections between the two umbilical cords with the end result being an unequal distribution of blood flow between the fetuses.

- The Donor Twin has decreased blood volume
  - slower than normal growth than its co-twin
  - poor urinary output causing little to no amniotic fluid or oligohydramnios
- The Recipient Twin has increased blood volume
  - strains baby's heart with increased blood flow --> can lead to congestive heart failure



## Occurrence:

Approximately 15% of the time with identical twins (it does not occur with fraternal twins because they do not share a placenta)

## Risk factors:

TTTS is not hereditary or genetic in nature. Contributing Factors include: timing of the twinning event (usually 4 days or more after conception) leading to a monochorionic placenta, number and type of connecting blood vessels within the placenta, occurs more often with diamniotic (vs monoamniotic) twins. Important to note TTTS is a random event, there is nothing the parents could or could not do to prevent this pregnancy. This syndrome can occur at any time during pregnancy and even can happen in labor.

## Diagnosis and Clinical Manifestations During Pregnancy:

noticeable alteration in size of fetuses, dissimilarity in size between the two amniotic sacs, difference in size of the umbilical cords, a single placenta, substantiation of fluid buildup in the skin of either fetus, discovery of congestive heart failure in the recipient twin, polyhydramnios (excess amniotic fluid) in the recipient twin, or oligohydramnios (decreased or too little amniotic fluid) in the donor twin.

## Treatment options:

Up until recent years TTTS was typically fatal for both fetuses. Amniocentesis can now be done to drain off excess amniotic fluid from the recipient twin which reduces the risk of preterm labor.

## Potential Complications of TTTS:

Premature labor either due to ruptured membranes or induction, respiratory, digestive, heart, or brain defects in the recipient twin because of excess fluids, donor twin developing anemia, fetal demise/death

## References

Twin to Twin Transfusion Syndrome (TTTS). (2016, September 02). Retrieved March 01, 2017, from <http://americanpregnancy.org/multiples/twin-to-twin-transfusion-syndrome/> Twin to Twin

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