**order of draw**

“in [phlebotomy](https://www.google.com/search?sca_esv=15969251e734fcae&rlz=1C1RXQR_enUS1160US1160&q=phlebotomy&sa=X&sqi=2&ved=2ahUKEwi0i8K0lPaNAxVo5ckDHb3sD-YQxccNegQIIRAB&mstk=AUtExfA0CCp7DTmc2LTV-gCRWcqFEud23b5Al5wYEog_g1Q43MAcxQNdqDT79jcN_1D4Ii8aIyYgsMODq8JjXkDgUavgNTT4vQm-ISG8v6AfUc_b4tL6pjzKfvKkrMbXkA5tP4I&csui=3) refers to the specific sequence in which blood collection tubes are filled to minimize the risk of additive carryover contamination. This standardized practice ensures accurate test results.

The standard order of draw is as follows:

[**1.**](https://www.google.com/search?sca_esv=15969251e734fcae&rlz=1C1RXQR_enUS1160US1160&q=Blood+culture+tubes&sa=X&sqi=2&ved=2ahUKEwi0i8K0lPaNAxVo5ckDHb3sD-YQxccNegQIMRAD&mstk=AUtExfA0CCp7DTmc2LTV-gCRWcqFEud23b5Al5wYEog_g1Q43MAcxQNdqDT79jcN_1D4Ii8aIyYgsMODq8JjXkDgUavgNTT4vQm-ISG8v6AfUc_b4tL6pjzKfvKkrMbXkA5tP4I&csui=3)[**Blood culture tubes**](https://www.google.com/search?sca_esv=15969251e734fcae&rlz=1C1RXQR_enUS1160US1160&q=Blood+culture+tubes&sa=X&sqi=2&ved=2ahUKEwi0i8K0lPaNAxVo5ckDHb3sD-YQxccNegQIKBAB&mstk=AUtExfA0CCp7DTmc2LTV-gCRWcqFEud23b5Al5wYEog_g1Q43MAcxQNdqDT79jcN_1D4Ii8aIyYgsMODq8JjXkDgUavgNTT4vQm-ISG8v6AfUc_b4tL6pjzKfvKkrMbXkA5tP4I&csui=3)**:** These are drawn first to minimize the risk of contamination from other tubes. Blood culture tubes, also known as [blood culture bottles](https://www.google.com/search?rlz=1C1RXQR_enUS1160US1160&sca_esv=15969251e734fcae&cs=0&q=blood+culture+bottles&sa=X&ved=2ahUKEwik19W-lfaNAxU1JNAFHVhhEXcQxccNegQIBRAB&mstk=AUtExfBBKtZLl38d9uL7rfMaRMyRBRNzvMBuHodYrDonWKe5EYoVBDuygG2-LQmywim2f9f4yf2VSfKnoBbLxyM4O5mXp5j2aDpboeYwaKWtKgU8O4uzoYw54_rMeRMA0C9B2wc&csui=3), are specialized collection devices used to detect microorganisms like bacteria and fungi in the bloodstream. These bottles contain a nutrient broth and are crucial for diagnosing [bloodstream infections](https://www.google.com/search?rlz=1C1RXQR_enUS1160US1160&sca_esv=15969251e734fcae&cs=0&q=bloodstream+infections&sa=X&ved=2ahUKEwik19W-lfaNAxU1JNAFHVhhEXcQxccNegQIBBAB&mstk=AUtExfBBKtZLl38d9uL7rfMaRMyRBRNzvMBuHodYrDonWKe5EYoVBDuygG2-LQmywim2f9f4yf2VSfKnoBbLxyM4O5mXp5j2aDpboeYwaKWtKgU8O4uzoYw54_rMeRMA0C9B2wc&csui=3) (bacteremia or fungemia). They are typically drawn before other blood tests to minimize the risk of contamination, and a set usually includes both aerobic (for oxygen-using microbes) and anaerobic (for microbes that don't need oxygen) bottles, according to the CDC

[**2.**](https://www.google.com/search?sca_esv=15969251e734fcae&rlz=1C1RXQR_enUS1160US1160&q=Sodium+citrate+tubes+%28e.g.%2C+light+blue+top%29&sa=X&sqi=2&ved=2ahUKEwi0i8K0lPaNAxVo5ckDHb3sD-YQxccNegQILxAD&mstk=AUtExfA0CCp7DTmc2LTV-gCRWcqFEud23b5Al5wYEog_g1Q43MAcxQNdqDT79jcN_1D4Ii8aIyYgsMODq8JjXkDgUavgNTT4vQm-ISG8v6AfUc_b4tL6pjzKfvKkrMbXkA5tP4I&csui=3)[**Sodium citrate tubes**](https://www.google.com/search?sca_esv=15969251e734fcae&rlz=1C1RXQR_enUS1160US1160&q=Sodium+citrate+tubes&sa=X&sqi=2&ved=2ahUKEwi0i8K0lPaNAxVo5ckDHb3sD-YQxccNegQIKRAB&mstk=AUtExfA0CCp7DTmc2LTV-gCRWcqFEud23b5Al5wYEog_g1Q43MAcxQNdqDT79jcN_1D4Ii8aIyYgsMODq8JjXkDgUavgNTT4vQm-ISG8v6AfUc_b4tL6pjzKfvKkrMbXkA5tP4I&csui=3)**(e.g., light blue top):**Used for coagulation studies, these tubes should be drawn next to prevent contamination from other additives. The "citrate tube" is for collecting blood for performing coagulation studies. It contains 3.2% sodium citrate as its anticoagulant. Mixing the blood inside the tube a few times is also recommended to form the plasma. There is no anticoagulant or additive inside the tube.

[**3.**](https://www.google.com/search?sca_esv=15969251e734fcae&rlz=1C1RXQR_enUS1160US1160&q=Serum+tubes+%28e.g.%2C+red%2C+gold%2C+or+speckled+tops%29&sa=X&sqi=2&ved=2ahUKEwi0i8K0lPaNAxVo5ckDHb3sD-YQxccNegUIlQEQAw&mstk=AUtExfA0CCp7DTmc2LTV-gCRWcqFEud23b5Al5wYEog_g1Q43MAcxQNdqDT79jcN_1D4Ii8aIyYgsMODq8JjXkDgUavgNTT4vQm-ISG8v6AfUc_b4tL6pjzKfvKkrMbXkA5tP4I&csui=3)[**Serum tubes**](https://www.google.com/search?sca_esv=15969251e734fcae&rlz=1C1RXQR_enUS1160US1160&q=Serum+tubes&sa=X&sqi=2&ved=2ahUKEwi0i8K0lPaNAxVo5ckDHb3sD-YQxccNegQIfBAB&mstk=AUtExfA0CCp7DTmc2LTV-gCRWcqFEud23b5Al5wYEog_g1Q43MAcxQNdqDT79jcN_1D4Ii8aIyYgsMODq8JjXkDgUavgNTT4vQm-ISG8v6AfUc_b4tL6pjzKfvKkrMbXkA5tP4I&csui=3)**(e.g., red, gold, or speckled tops):**These may contain clot activators or [gel separators](https://www.google.com/search?sca_esv=15969251e734fcae&rlz=1C1RXQR_enUS1160US1160&q=gel+separators&sa=X&sqi=2&ved=2ahUKEwi0i8K0lPaNAxVo5ckDHb3sD-YQxccNegUIhQEQAQ&mstk=AUtExfA0CCp7DTmc2LTV-gCRWcqFEud23b5Al5wYEog_g1Q43MAcxQNdqDT79jcN_1D4Ii8aIyYgsMODq8JjXkDgUavgNTT4vQm-ISG8v6AfUc_b4tL6pjzKfvKkrMbXkA5tP4I&csui=3) and are drawn after coagulation tubes. Serum separator tubes (SSTs), often colored red/gray, gold, or cherry red, are used in clinical laboratories to collect blood and separate the serum from the cellular components. This separation is crucial for many lab tests that require the liquid portion of the blood, rather than the entire sample.

[**4.**](https://www.google.com/search?sca_esv=15969251e734fcae&rlz=1C1RXQR_enUS1160US1160&q=Heparin+tubes+%28e.g.%2C+green+tops%29&sa=X&sqi=2&ved=2ahUKEwi0i8K0lPaNAxVo5ckDHb3sD-YQxccNegUInQEQAw&mstk=AUtExfA0CCp7DTmc2LTV-gCRWcqFEud23b5Al5wYEog_g1Q43MAcxQNdqDT79jcN_1D4Ii8aIyYgsMODq8JjXkDgUavgNTT4vQm-ISG8v6AfUc_b4tL6pjzKfvKkrMbXkA5tP4I&csui=3)[**Heparin tubes**](https://www.google.com/search?sca_esv=15969251e734fcae&rlz=1C1RXQR_enUS1160US1160&q=Heparin+tubes&sa=X&sqi=2&ved=2ahUKEwi0i8K0lPaNAxVo5ckDHb3sD-YQxccNegUIhgEQAQ&mstk=AUtExfA0CCp7DTmc2LTV-gCRWcqFEud23b5Al5wYEog_g1Q43MAcxQNdqDT79jcN_1D4Ii8aIyYgsMODq8JjXkDgUavgNTT4vQm-ISG8v6AfUc_b4tL6pjzKfvKkrMbXkA5tP4I&csui=3)**(e.g., green tops):**Used for various tests, including some chemistry tests, and are drawn before EDTA tubes. A heparin blood tube is used for the collection of plasma or whole blood for special tests involving clinical chemistry, immunology, and microbiological serology. Heparin is an anticoagulant, a blood thinner which prevents the formation of blood clots.

[**5.**](https://www.google.com/search?sca_esv=15969251e734fcae&rlz=1C1RXQR_enUS1160US1160&q=EDTA+tubes+%28e.g.%2C+lavender+tops%29&sa=X&sqi=2&ved=2ahUKEwi0i8K0lPaNAxVo5ckDHb3sD-YQxccNegUIngEQAw&mstk=AUtExfA0CCp7DTmc2LTV-gCRWcqFEud23b5Al5wYEog_g1Q43MAcxQNdqDT79jcN_1D4Ii8aIyYgsMODq8JjXkDgUavgNTT4vQm-ISG8v6AfUc_b4tL6pjzKfvKkrMbXkA5tP4I&csui=3)[**EDTA tubes**](https://www.google.com/search?sca_esv=15969251e734fcae&rlz=1C1RXQR_enUS1160US1160&q=EDTA+tubes&sa=X&sqi=2&ved=2ahUKEwi0i8K0lPaNAxVo5ckDHb3sD-YQxccNegUIiAEQAQ&mstk=AUtExfA0CCp7DTmc2LTV-gCRWcqFEud23b5Al5wYEog_g1Q43MAcxQNdqDT79jcN_1D4Ii8aIyYgsMODq8JjXkDgUavgNTT4vQm-ISG8v6AfUc_b4tL6pjzKfvKkrMbXkA5tP4I&csui=3)**(e.g., lavender tops):**These tubes contain EDTA, which prevents [clotting](https://www.google.com/search?sca_esv=15969251e734fcae&rlz=1C1RXQR_enUS1160US1160&q=clotting&sa=X&sqi=2&ved=2ahUKEwi0i8K0lPaNAxVo5ckDHb3sD-YQxccNegUImwEQAQ&mstk=AUtExfA0CCp7DTmc2LTV-gCRWcqFEud23b5Al5wYEog_g1Q43MAcxQNdqDT79jcN_1D4Ii8aIyYgsMODq8JjXkDgUavgNTT4vQm-ISG8v6AfUc_b4tL6pjzKfvKkrMbXkA5tP4I&csui=3), and are drawn after heparin tubes. EDTA tubes, which are lavender or purple-capped, are primarily used for [hematology](https://www.google.com/search?sa=X&sca_esv=15969251e734fcae&rlz=1C1RXQR_enUS1160US1160&q=hematology&ved=2ahUKEwiS-r_xlvaNAxWeMUQIHbDiMC8QxccNegQIdhAB) tests, such as complete blood counts (CBCs), blood typing, and other tests that require whole blood for analysis. The EDTA additive, an anticoagulant, prevents the blood from clotting, preserving the cellular components for accurate testing

[**6.**](https://www.google.com/search?sca_esv=15969251e734fcae&rlz=1C1RXQR_enUS1160US1160&q=Glycolytic+inhibitor+tubes+%28e.g.%2C+gray+tops%29&sa=X&sqi=2&ved=2ahUKEwi0i8K0lPaNAxVo5ckDHb3sD-YQxccNegUInAEQAw&mstk=AUtExfA0CCp7DTmc2LTV-gCRWcqFEud23b5Al5wYEog_g1Q43MAcxQNdqDT79jcN_1D4Ii8aIyYgsMODq8JjXkDgUavgNTT4vQm-ISG8v6AfUc_b4tL6pjzKfvKkrMbXkA5tP4I&csui=3)[**Glycolytic inhibitor tubes**](https://www.google.com/search?sca_esv=15969251e734fcae&rlz=1C1RXQR_enUS1160US1160&q=Glycolytic+inhibitor+tubes&sa=X&sqi=2&ved=2ahUKEwi0i8K0lPaNAxVo5ckDHb3sD-YQxccNegUIhwEQAQ&mstk=AUtExfA0CCp7DTmc2LTV-gCRWcqFEud23b5Al5wYEog_g1Q43MAcxQNdqDT79jcN_1D4Ii8aIyYgsMODq8JjXkDgUavgNTT4vQm-ISG8v6AfUc_b4tL6pjzKfvKkrMbXkA5tP4I&csui=3)**(e.g., gray tops):**Used for glucose testing, these are drawn last to avoid contamination. Ideal for use in glucose and lactate determinations, tubes contain an anticoagulant (potassium oxalate) and a stabilizer (sodium fluoride).

Why is the order of draw important?

* **Prevents contamination:**

Additives from one tube can affect the results of tests in other tubes if they are not drawn in the correct order.

* **Ensures accurate results:**

By following the order of draw, you can ensure that the blood samples are as accurate as possible for laboratory testing.