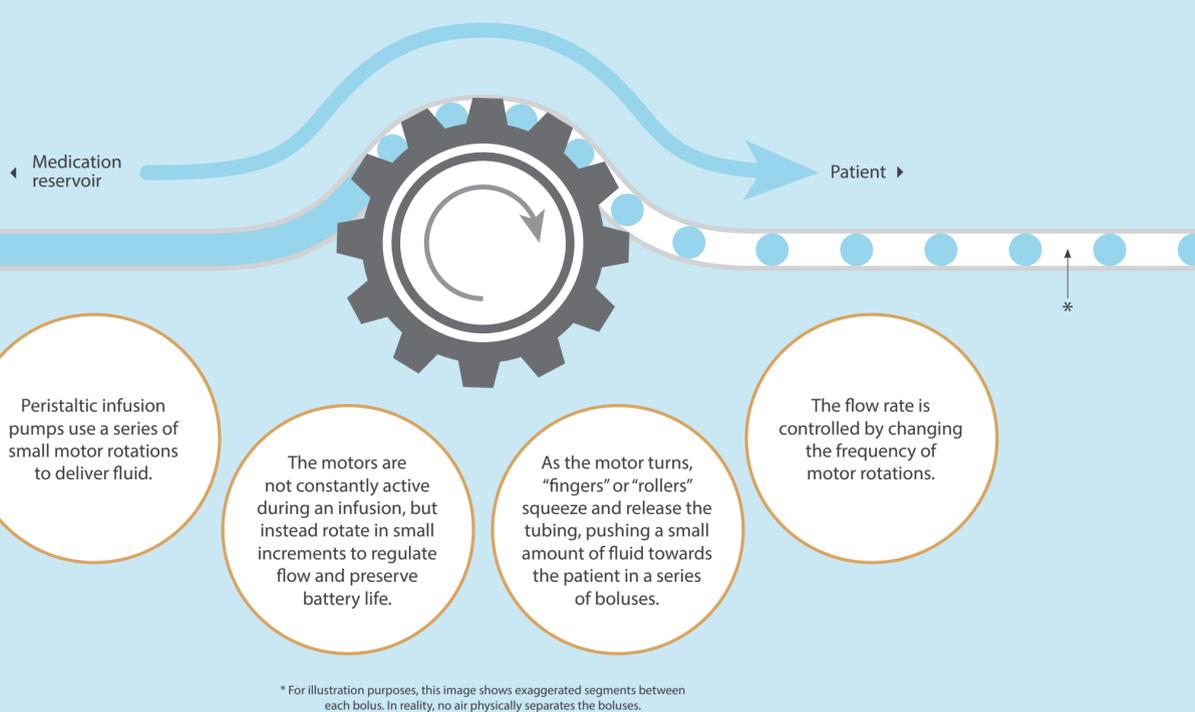


RESOLUTION OF FLOW

HOW FLUID DELIVERY IMPACTS INFUSION THERAPY

Understanding the mechanisms that infusion pumps use to deliver fluid can help ensure that an optimal pump is chosen for use in specific applications.

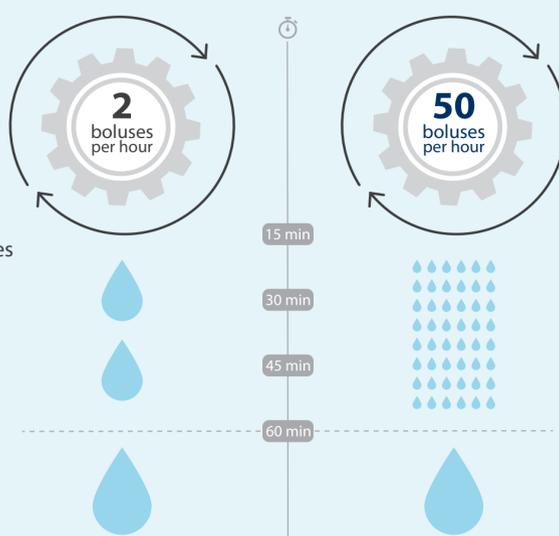
HOW PERISTALTIC PUMPS WORK



RESOLUTION OF FLOW

Resolution of flow is used to describe the amount of fluid pushed into the downstream tubing with each turn of the motor.

Resolution of Flow can be measured by determining the number of boluses required to deliver 1 milliliter of fluid – boluses per milliliter delivered, or b/mL.



The more boluses that are delivered per milliliter of fluid delivery, the higher the Resolution of Flow.

Higher Resolution of Flow indicates that a pump is delivering fluid in smaller micro-boluses throughout the infusion.

A pump with low Resolution of Flow may deliver 0.1 mL over 1 hour in only 2 boluses of fluid.

A pump with high Resolution of Flow may deliver the same 0.1 mL over 1 hour in 50 smaller micro-boluses.

CLINICAL IMPACT OF FLOW RESOLUTION



Infusion of smaller micro-boluses is often much more therapeutically effective than infusion of larger boluses administered less often, especially when infusing drugs at very low infusion rates (0.1 – 5mL/hr).



Many drugs have relatively short half-lives, and can be classified as critical or high-risk drugs. Most of these drugs infuse at very low infusion rates. Evenly and closely spaced fluid delivery reduces the spiking and troughing of medication blood serum levels and provides a more constant therapeutic effect.

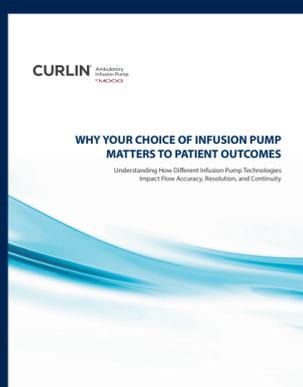


Examples of these drugs include inotropes, immunotherapy, chemotherapy, and pain management. In these cases, smaller, more closely spaced doses must be maintained for maximum clinical efficacy.



Patients that are on these types of therapies are generally high-risk patients due to either their medical condition or the type of therapy that they are receiving.

At very low infusion rates, high Resolution of Flow becomes even more critical as it ensures that the time between infused boluses is minimized.



Why Your Choice of Infusion Pump Matters to Patient Outcomes

Understanding How Different Infusion Pump Technologies Impact Flow Accuracy, Resolution, and Continuity

A recently published whitepaper describes how different infusion pump technologies operate, and why Resolution and Continuity of Flow are important factors when choosing an infusion pump. If you are interested in learning more, call us at **800.970.2337** or visit **www.curlinump.com**.