VALLEYHEALTH

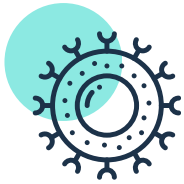
Understanding Antibiotic Resistance

Antibiotic resistance occurs when bacteria adapt to survive medications designed to kill them. Over time, these bacteria become “smarter” and harder to treat, reducing the power of antibiotics.

This process happens naturally but is accelerated by overuse or misuse of antibiotic drugs. When that occurs, infections that were once simple to treat can become far more dangerous.

Why It’s a Serious Health Concern

Experts consider antibiotic resistance a **major public health threat.** In the U.S., resistant infections cause around **2 million illnesses and 23,000 deaths each year.**



As bacteria become harder to treat, everyday illnesses like **strep throat, pneumonia, or urinary tract infections** may require stronger or multiple antibiotics. This can lead to longer illnesses, higher medical costs, and more complications.

Common Causes of Antibiotic Resistance

Overuse and inappropriate prescribing are key drivers of resistance. Research shows:

- About **30% of antibiotic prescriptions** are unnecessary.
- Up to **50% are prescribed incorrectly,** involving the wrong drug, dose, or duration.

Patients can help by asking if antibiotics are truly needed, taking them exactly as prescribed, and never sharing leftover medications.

Infections Commonly Affected by Resistance

Resistant bacteria can make common infections harder to treat. Examples include:

- **MRSA (staph infections)**
- **Pneumonia**
- **Urinary tract infections (UTIs)**
- **Sepsis**

These conditions sometimes require longer recovery times or hospitalization when resistant bacteria are involved.

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When Antibiotics Are (and Aren't) Needed

Antibiotics treat **bacterial infections,** not **viruses** like colds or influenza. Taking them for viral illnesses won't help and can make resistance worse.

Mild infections often improve on their own with rest, fluids, and time.

See a provider right away if you experience:

- A fever lasting more than 3-5 days
- Shortness of breath or dehydration
- Symptoms that were improving but then start to worsen

Timely care helps prevent serious complications and ensures appropriate treatment.

Preventing Future Antibiotic Resistance

Everyone can help preserve the power of antibiotics.

To reduce the spread of resistance:

- Take antibiotics only as prescribed for confirmed bacterial infections.
- Finish every dose, even if you feel better early.
- Never save or share leftover antibiotics.
- Wash your hands regularly to lower infection risk.
- Stay current on recommended vaccines.

At **Valley Health,** our **Antimicrobial Stewardship Programs** monitor antibiotic use and educate both patients and providers to protect public health.

Combating antibiotic resistance takes teamwork between healthcare providers and patients. Thoughtful use of antibiotics helps ensure these vital medicines remain effective for years to come.

If you're unsure whether antibiotics are needed or want guidance about treatment, contact Valley Health or visit valleyhealth.org.