

#### PATIENT & CAREGIVER EDUCATION

# **Colloidal Silver**

This information describes the common uses of Colloidal Silver, how it works, and its possible side effects.

Tell your healthcare providers about any dietary supplements you're taking, such as herbs, vitamins, minerals, and natural or home remedies. This will help them manage your care and keep you safe.

### What is it?

Colloidal silver cannot cure cancer, AIDS, or diabetes. Taking too much colloidal silver by mouth can cause skin discoloration, seizures, and kidney damage.

Colloidal silver is a suspension of tiny silver particles in a liquid. Silver compounds are used externally to stop or prevent infections but recently, many people have started taking colloidal silver as an alternative medicine. It is being promoted as a cure for cancer, diabetes, and AIDS although there is no proof it works in humans. Our body does not need silver to function normally. Silver actually denatures proteins and can make many enzymes lose their effects.

Long-term oral use of silver can make the skin turn bluish-gray or gray-black in color. It can also cause seizures and kidney damage. Pregnant women should not consume colloidal silver as it has harmful effects on the fetus.

Colloidal Silver

## What are the potential uses and benefits?

- Immunostimulation
   No scientific studies support this use.
- Diabetes
   There are no data to support this use.
- AIDS
   There is no scientific evidence to support this use.
- Cancer
   This use is not supported by scientific studies.
- Infections
   Silver compounds have been used as topical antiseptics, but there are no scientific studies to support the oral use of colloidal silver for treating infections.

### What are the side effects?

- Reported (Oral): Accumulation of silver in the body causes argyria, a bluishgray discoloration of the skin, which is typically permanent.
- Reported (Oral): Myoclonic seizures were reported in a 75-year-old man following self-medication with silver.
- Reported (Topical): Topical use of silver nitrate for burns may cause methemoglobinemia.
   Exposure to high concentrations of silver, such as in an industrial setting, leads to systemic toxicity.
- Pauci-immune crescentic glomerulonephritis: In a 47-year-old woman with a T-cell lymphoma following self-medication with a remedy containing colloidal silver. The patient was treated with intravenous methylprednisolone and intravenous cyclophosphamide and recovered independent renal function.
- Leukocytoclastic vasculitis: In a 19-year-old female after ingesting colloidal silver, warranting hospitalization. Symptoms resolves after discontinuing

Colloidal Silver 2/4

colloidal silver.

- Optic neuropathy: In a 57-year-old woman following use of colloidal silver, by ingestion and by direct application to the skin, nasal mucosa and ear canal, for various ailments. Cessation of colloidal silver prevented progression of neuropathy.
- Peripheral neuropathy associated with argyria: In a 40-year-old woman
  after consuming colloidal silver for months prior to the onset of symptoms.
  She was treated with IV immunoglobulin with reported improvement as the
  sensory level regressed down to her knees and she was able to ambulate
  independently. But no further improvement was observed following plasma
  exchange.
- Acute myeloid leukemia (AML) with complex cytogenetic abnormalities resulting in death: In a 72-year-old male with a history of stage II prostate cancer treated with radical prostatectomy, following habitual ingestion of colloidal silver as nutritional supplement for over 10 years.
- Sensory and gait problems: In a 47-year-old man due to silver intoxication from chronic oral and intravenous silver administration. His symptoms abated after stopping silver use.

## What else do I need to know?

#### **Patient Warnings:**

 The U.S. Food and Drug Administration has warned companies marketing products, including colloidal silver, with false claims of preventing or treating the coronavirus disease COVID-19.

#### Do Not Take if:

• You are **pregnant** (colloidal silver can cause developmental abnormalities in the fetus).

Colloidal Silver 3/4

If you have questions or concerns, contact your healthcare provider. A member of your care team will answer Monday through Friday from 9 a.m. to 5 p.m. Outside those hours, you can leave a message or talk with another MSK provider. There is always a doctor or nurse on call. If you're not sure how to reach your healthcare provider, call 212-639-2000.

For more resources, visit www.mskcc.org/pe to search our virtual library.

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Colloidal Silver 4/4