

**The KCM (KCM)** is made of 99.95% pure copper mesh mask that sanitizes and filters the air you breathe. The mask is unique. An in-house study confirmed the KCM deposited a minute amount of copper in the nostrils. Published reports of laboratory studies proved copper inactivated most corona virus, flu, and other respiratory viruses and killed bacteria on contact. Inactivation renders virus unable to infect, making them harmless. Copper has anti-inflammatory properties, as well.

Currently, no clinical trials are available on the use of the KCM with corona or other viruses, nor the effects of extended wearing times. Further research is needed. Corona virus, cold, flu, respiratory, other viral infections or allergy symptoms may develop, regardless of precautions taken.

**MATERIALS:** The main structural component of the KCM is 99.95% pure copper mesh. The ear loops are made of polyester and spandex (no latex). The edges are lined with nylon or moleskin for increased comfort.

**CONTENTS OF PACKAGE:**

- Instructions
- One KCM to cover the nose and mouth (Fig 1, 2) (Specify black or beige in your order)
- One inch sq. copper mesh patch
- Moleskin strip in mask with moleskin edge
- Small blue desiccant pack, a drying agent (Inter-teck Packaging)
- Plastic bag

**DIRECTIONS FOR USE:** Read all enclosed directions before use. One size fits most. For adult use only. The KCM is reusable by a single wearer, unless sterilized. (See Cleaning Procedure below.) If you wear eye glasses, remove them before applying the KCM. Place ear loops over ears to secure the KCM to face. Gently squeeze the KCM over the bridge of nose to create a closer fit. The bottom edge should rest on the chin, beneath the lower lip. If slight gapping occurs on sides, insert index fingers beneath the sides of mask and pinch to make small pleats. If whiskers or stubble penetrate the mesh mask and cause an uncomfortable sensation, shave before use or wear a Kuhn Copper Mesh Insert under a surgical mask. If ear loops become loose, use a slip knot at the end of the loop. (Find further instructions at [www.Kuhncoppersolutions.org](http://www.Kuhncoppersolutions.org) Mask Instructions)

The KCM has a 30% open weave, ensuring a comfortable wearing experience and easy breathing, without becoming too warm or fogging glasses. This allows a miniscule amount of copper to be deposited in the nasal area. Copper is known to inactivate viruses and has known anti-inflammatory properties, as well. The mask is made of a “see through” mesh, but is water-resistant because of the tensile strength of water. Water droplets at low pressure are repelled. Water resistance can help repel droplets expelled by sneezing. (Fig 3, 4).



**Fig 3** Mesh is water-resistant. Water beads up.



**Fig 4** A sneeze can propel particles more than 20 feet <https://en.wikipedia.org/wiki/sneeze>



**Fig 5** KCM: Use in crowded airplanes or buses

<https://unsplash.com/photos/tTfDMaRq-FE>  
Photo by Subyeon Choi on Unsplash



**Fig 6** KCM: Not for use under any condition when bodily fluids can splash directly on the mask. See above

<https://unsplash.com/s/photos/surgeon>

**RECOMMENDED USES FOR the KCM:** When breathing sanitized and filtered air is important. Protect yourself and others. Careful use only when needed will help ensure that copper will remain effective for many years. For other examples of uses and reviews, see User Comments, visit [www.Kuhncoppersolutions.org](http://www.Kuhncoppersolutions.org)

### RESPIRATORY INFECTIONS:

Wear the mask:

To protect others:

- at the first sign of a cold, such as a tickle in your nose, flu or flu-like symptoms (fever, aches, headache fatigue, sore throat, cough).  
See user comments at [www.kuhncoppersolutions.org](http://www.kuhncoppersolutions.org);
- at the first sign of a fever and cough\*

To protect yourself:

if you are immunosuppressed and have to visit a crowded doctor's office;

- in a crowded place, especially during flu season;
- if traveling (plane, buses, train, cruise) ; (Fig 5)
- if close to someone who is sneezing or has a cold or the flu;
- if you are experiencing a cold or flu and wish to protect others;
- post exposure: If you do not have your mask and are exposed to someone with a cold or flu or you are traveling and do not want to wear the mask, wear it after travel ends, even if it is 2 to 3 hours post exposure;eg, while watching TV in the evening.
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If Corona virus is suspected, take all recommended precautions. Stay Isolated. See a doctor.

**No clinical trials are available regarding the efficacy of the protective or therapeutic effects of wearing a copper mask. Further research is needed.** Corona virus, cold, flu, respiratory, other viral infections or allergy symptoms may develop, regardless of precautions taken.

Adults with heart and lung conditions that make breathing through ordinary masks difficult, and those with high blood pressure for whom certain cold medications are contraindicated (should not be used) may find the mask particularly helpful in the above conditions.

#### **ALLERGIES:**

Wear mask when you are being exposed to known environmental allergens, for example, outdoor activities, when cutting a lawn, yard work, or harvesting hay. See user comments at [www.kuhncoppersolutions.org](http://www.kuhncoppersolutions.org).



**WARNING:** The KCMs are not intended as a surgical, infection control, dental, or medical procedure mask **and should not be used under any conditions where bodily fluids or blood may be sprayed directly on the KCM as a splash may penetrate mask** (Fig 6). Also, it is not for use in high risk aerosol- generating conditions, nor for use in clinical situations where infection risk level through inhalation exposure is high. **The KCMs may be worn beneath a traditional surgical mask, dental, isolation or surgical procedural mask to enhance protective properties;** for example, health care workers, dentists, surgeons, or first responders with a potential hepatitis or HIV patient. However, a Copper Mesh Insert is designed to be worn beneath another mask and will afford a more comfortable wearing experience.

**GENERAL PRECAUTIONS:** Wearing a Copper KCM does not eliminate the possibility of contracting diseases. The use of the Copper KCM is not a substitute for good hygienic practices, careful cleaning, proper handwashing techniques, immunizations, antiviral drugs, or antibiotics. **If you experience persistent symptoms of a cold, flu, or chest or sinus infections, consult a doctor. If you experience persistent cough and a fever, consult a doctor.**



“Coronavirus disease:

Illnesses have ranged from mild symptoms to severe illness and death. Symptoms of fever, cough, and shortness of breath may appear **2-14 days after exposure.**\*

If emergency **warning signs** for COVID-19 develop, get **medical attention immediately.** Emergency warning signs include:

- Difficulty breathing or shortness of breath
- Persistent pain or pressure in the chest
- New confusion or inability to arouse
- Bluish lips or face

Consult your medical provider for any other symptoms that are severe or concerning.”\*

\*[https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html?CDC\\_AA\\_refVal=https%3A%2F%2Fwww.cdc.gov%2Fcoronavirus%2F2019-ncov%2Fabout%2Fsymptoms.html](https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Fcoronavirus%2F2019-ncov%2Fabout%2Fsymptoms.html)

**PRECAUTIONS:** The Copper KCMs are contraindicated (should not be used) in persons with Wilson's disease; or allergy, sensitivity, or toxicity to copper; or metal allergy of any kind. If uncertain regarding allergy or sensitivity, secure the small copper patch with hypoallergenic tape to a site under the upper part of the arm for 24 hours. Remove and inspect the site for redness or any irritation. If redness or irritation is present, return the mask for a full refund. The Masks have not been tested in infants, children, or in pregnant or breastfeeding women and is therefore contraindicated in these groups. **The body has a natural mechanism for maintaining copper levels. However, children under one have not developed this mechanism.** Like any powerful antimicrobial, only use mask when necessary. Many microbes have become resistant to antibiotics because of overuse. Careful use only when needed will help ensure that copper will remain capable of killing microbes for many years.

**RISKS: What are the possible risks or discomfort?**

- Cold, flu, respiratory, other viral infections or allergy symptoms may develop, regardless of precautions taken.
- An abrasion may result if the Copper KCM is fitted too tightly on the face or is too small for the wearer (replace ear loops with longer loops).
- Though copper allergy is extremely rare, if a person is allergic to the copper, he/she may experience discomfort, redness, red marks, irritation, rash, pain, swelling, and/or blisters. **Discontinue use immediately. Return mask for full refund. (See Return policy, p.8.)** Usually, medical treatment is not needed. However, if any of the above symptoms become worse or if the red marks/rashes are spreading, seek medical advice immediately.  
[http://www.ehow.com/about\\_5507189\\_symptoms-copper-allergy.html](http://www.ehow.com/about_5507189_symptoms-copper-allergy.html) The risks can be lessened by carefully following the instructions.

**SAFETY:** Copper is needed to maintain health and occurs in foods. Absorbing trace amounts is safe. Allergy, sensitivity, and irritation to copper are rare. The miniscule amounts deposited in the nostrils, 1.6ppm in the highest sample after two hours of wear, was 3 orders of magnitude lower than the amount of copper dust that would need to be inhaled to cause an adverse effect, 994 pp. Copper detected on soaking (eluting) the entire mask in water at 37°C for 72 hours was only 2 ppm.

Copper has to be ingested as a chronic oral ingestion in food and water that supplies more than 5mg/kg per day to reach toxic levels and cause harm. <sup>(1, 2)</sup>

1. Aggett PJ Fairweather-Tait. Adaptations to high and low copper: its relevance to estimate safe and adequate daily dietary intake. S.Am J Clin Nutri 1998; 6:1061S-1063S
2. Copper and the Skin, Hostynek and Maibach ed, Informa healthcare, NY and London. P57. 73:2006.

**POTENTIAL BENEFITS:** The KCMs allow the user to breathe sanitized, filtered air.

**CLEANING PROCEDURE:** Before each use, visually inspect the KCM for tears, tarnish, or soiling. If the KCM becomes wet, dry and disinfect before reuse.

**Tarnish removal:** Copper will tarnish or discolor when exposed to water and air. Though tarnishing does not affect the virus inactivating properties, removing tarnish when it first appears is most effective. If visibly discolored, soak KCM in ½ cup water and ½ cup lime juice, lemon juice, or strong vinegar for two to four (2-4) hours or until the tarnish disappears. (Lime juice is slightly more acidic than lemon juice, or vinegar and works better at removing discoloration.) Rinse well with water, then again with rubbing (70% isopropyl) alcohol. Place KCM between two sheets of absorbent paper toweling and press until no more water is visible on the toweling. Dry thoroughly. If the tarnish is in a small spot, wet a cotton swab with lemon or lime juice, and rub on the discolored spot until the spot disappears. Rinse with water and then alcohol, and dry thoroughly. Store as instructed in Storage instructions.

**Organic material removal:** If visibly soiled with organic material, ie, from a sneeze, rinse the KCM in hot water, and scrub both sides with a new toothbrush until clean. Rinse again in hot water, then rinse in rubbing alcohol. Dry thoroughly as above. If the KCM is still visibly soiled, repeat the procedure. If the KCM remains visibly soiled, corroded, pitted, or torn, the KCM should be discarded in regular trash and reordered.

**Disinfection/Sterilization:** Inspect and remove organic material (ie, from a sneeze) before disinfecting or sterilizing, Disinfection greatly reduces the number of germs, sterilization kills all germs. Though the KCM will self- disinfect in within minutes, the KCM may be disinfected immediately by rinsing or dipping in rubbing alcohol. **Do not soak.** The KCM may be sterilized by ethylene oxide or steam autoclaving (high temp, steam, and pressure). Once sterilized, it may be worn by another person. Because of the cidal (killing) activity, the KCM is not a repository (home) for germs.

**SHELF LIFE/EXPIRATION DATE: Two (2) years.** Though the cidal (inactivating and killing) activity of copper is permanent, the KCM can corrode or become pitted on exposure to water and air. It can tear if folded sharply. If the KCM is compromised (eg, torn or pitted), or is soiled to the extent that it cannot be cleaned, the KCM should be discarded in regular trash and reordered. If the ear loops become too loose, tighten with a slip knot. (See [www, Kuhncoppersolutions.org](http://www.Kuhncoppersolutions.org), Mask Instructions)

**STORAGE INSTRUCTIONS:** Store in a dry place at room temperature in a sealable clear plastic bag along with the blue desiccant. If the desiccant pack turns pink, reactivate it by microwaving it for about 1.5 minutes on LOW power. The plastic bag can be reused to store or carry the KCM. Avoid folding the mask. Tarnishing will occur along fold. **IMPORTANT: Never put the KCM in a microwave. This is a Potential Fire Hazard.**

**CONTACT:** For questions, comments, reporting adverse events, please contact [Pkuhnphd@aol.com](mailto:Pkuhnphd@aol.com). Research studies and new information will be posted on the website, [Kuhncoppersolutions.org](http://Kuhncoppersolutions.org).

**MONEY BACK GUARANTEE:** If you are not completely satisfied with your purchase, you may return it within four weeks of receipt for a full refund or replacement.

**TROUBLE SHOOTING:** If you experience an undesirable outcome or adverse event, please contact Kuhn Copper Solutions [Pkuhnphd@aol.com](mailto:Pkuhnphd@aol.com) 727 288 6905

Problem	Possible Cause and Corrective Action
After you apply the Copper KCM, you smell a metallic odor.	This is to be expected. No action is necessary. It indicates the mask is “working” and releasing copper atoms. The odor will dissipate after about 20 minutes.
After you apply the Copper KCM you experience burning, redness, swelling, irritation on the face.	Possible allergic reaction. Remove immediately and rinse face in copious amounts of cold water.  If condition worsens, seek medical help immediately. Note: copper allergies rare.  Do not reapply. Contact company to report adverse reaction and for full refund.
After you apply the Copper KCM, you experience some abrasions.	Possible inaccurate application.  Mole skin strips may not completely cover the edges. Suggest replacing mole skin strips to cover entire edge of mask.  Copper KCM may be too small for your face and the Copper KCM may be pressed too tightly against your skin. Suggest stretch ear loops or contact company directly for special order of a larger mask.
After you apply the Copper KCM, you experience a slight scratching in your throat.	Possible mild irritation or drying from the Copper KCM. This should resolve within 10 to 15 minutes. No action is required.  Possible irritation from Copper KCM not resolving within 10 to 15 minutes.  Remove mask. Do not reapply. Contact company to report an adverse reaction and for a full refund.  If condition worsens, seek medical help immediately. Note: copper allergies are extremely rare.
After you apply the Copper KCM, you are still experiencing a stuffy nose when exposed to environmental allergens; eg, mowing a lawn or harvesting , etc.	Possible inaccurate application. Look in a mirror. If the mask has slipped too low on the nose, a large gap will appear under the mouth. Readjust the Copper KCM so the top

	<p>edge hits the upper part of the bridge of the nose and the bottom is under the nostrils (mini mask) or resting under the mouth on the chin (face mask). Pinch the sides tighter until edges of Copper KCM are flush with face. The mask should fit snugly to the face with little or no gapping.</p> <p>Possible sensitivity to allergens such as small pollens or other allergens not filtered out by the mask. Avoid activity that triggers the reaction. Wear a conventional face mask with much less air flow.</p>
<p>You are feeling a pinching sensation where the mask touches the skin.</p>	<p>Possible frayed thin copper wire. Press the edges of the mesh on a solid surface. Put the mask on to see if this relieves the pinch. If this does not work, replace the mole skin and ensure the mole skin covers all edges of the mask.</p> <p>Possibly catching beard in the mesh. Shave before application.</p>

**Return Policy:** Money back guarantee. If you are not completely satisfied with your purchase, you may return it within four weeks for a full refund. If the material rips within one month of purchase, the Copper KCM will be replaced. It must be returned in the original package and with all the original material, as well as the receipt.

**This is a device for sanitizing and filtering the air.**

**If you have questions, contact:**

**Kuhn Copper Solutions**

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