

Study identifies the danger of grill brushes

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Rhode Island Hospital physicians identified six cases of accidental ingestion of wire grill brush bristles that required endoscopic or surgical removal. The paper calls attention to the need for the public and physicians to be aware of this potential danger. It is published in the *American Journal of Roentgenology* and is now available online in advance of print.

David Grand, M.D., a [radiologist](#) in the [diagnostic imaging](#) department at Rhode Island Hospital, is the lead author of the paper. Grand explains that six patients were identified within an 18-month period who presented to the [emergency department](#) within 24 hours of ingesting grilled meat. Their symptoms were odynophagia (painful swallowing in the mouth or esophagus) or abdominal pain.

In all cases, a careful history revealed the patients had consumed meat cooked on a grill that was cleaned with a wire brush immediately prior to cooking. Of the patients, three presented with odynophagia as a primary symptom. Two underwent radiography of the neck, which revealed a metallic foreign body [the bristles], while one patient had a computed tomography (CT) scan that identified and localized the bristles within the neck. In all three patients the wires were identified and removed.

The remaining three patients presented with abdominal pain and underwent CT scans. In two patients, the wire perforated the [small intestine](#) and in the third, the wire perforated through the stomach and into the liver, and was surrounded by a large hepatic abscess. Surgery was performed in all three patients.

Grand says, "Although foreign body ingestion is not a rare complaint in an emergency department, it is striking that in only 18 months we identified six separate episodes of wire bristle ingestion after eating grilled meat. The public should be aware of this potential danger." Grand discusses the study in this video and comments that he now wipes his own grill with paper towels after using a grill brush as a way to prevent this from happening.

Grand adds, "It is also important for physicians to be aware of this danger and pay close attention to clinical history. In patients presenting with odynophagia, plain radiography may identify the wire bristle; however, CT is helpful for anatomic localization. For patients presenting with abdominal pain, CT is recommended and oral contrast should not be used as it can obscure the foreign body, in this case, wire [bristles](#)."

Provided by Lifespan

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