A 40-year-old woman with chronic gastritis who did not have alcoholism had lost 50 pounds in the past 45 days and presented with dyscoordination and diplopia. Examination showed confabulation, ophthalmoplegia, nystagmus, and appendicular ataxia. Brain MRI (Figure) showed diffusion-weighted imaging and fluid-attenuated inversion recovery abnormalities suggestive of Wernicke encephalopathy (WE). With classic triad of WE and MRI findings, IV
thiamine 500 mg TID was administered for 3 days, followed by maintenance oral thiamine. The patient showed substantial improvement. Thiamine replacement therapy should be considered in patients with malnutrition or malabsorption as it is important in maintaining cellular osmotic gradients. Thiamine deficiency may lead to cytotoxic edema, especially in high metabolic demand regions such as thalami and mammillary bodies.¹

**Study Funding**
No targeted funding reported.

**Disclosure**
The authors report no disclosures relevant to the manuscript. Go to Neurology.org/N for full disclosures.

**Appendix Authors**

<table>
<thead>
<tr>
<th>Name</th>
<th>Location</th>
<th>Contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grant Hansen, BS</td>
<td>Texas Tech, University Health Sciences Center, Lubbock</td>
<td>Drafting and revising of the manuscript, participated in data acquisition and interpretation</td>
</tr>
<tr>
<td>Eunjee Kim, BA, MBA</td>
<td>Texas Tech, University Health Sciences Center, Lubbock</td>
<td>Drafting and revising of the manuscript, participated in data acquisition and interpretation</td>
</tr>
<tr>
<td>Smathorn Thakolwiboon, MD</td>
<td>Texas Tech, University Health Sciences Center, Lubbock</td>
<td>Critically reviewing the manuscript, contributed to the drafting and revising of the manuscript, conceptualization of the work</td>
</tr>
<tr>
<td>Jongyeol Kim, MD</td>
<td>Texas Tech, University Health Sciences Center, Lubbock</td>
<td>Contributed to the drafting and revising of the manuscript, conceptualization of the work, and supervision</td>
</tr>
</tbody>
</table>

**Reference**
Teaching NeuroImage: Nonalcoholic Wernicke Encephalopathy
Grant Hansen, Eunjee Kim, Smathorn Thakolwiboon, et al.
Neurology 2021;97:e1541-e1542 Published Online before print May 13, 2021
DOI 10.1212/WNL.0000000000012196

This information is current as of May 13, 2021

Updated Information & Services
including high resolution figures, can be found at:
http://n.neurology.org/content/97/15/e1541.full

References
This article cites 1 articles, 0 of which you can access for free at:
http://n.neurology.org/content/97/15/e1541.full#ref-list-1

Subspecialty Collections
This article, along with others on similar topics, appears in the following collection(s):
MRI
http://n.neurology.org/cgi/collection/mri
Nutritional
http://n.neurology.org/cgi/collection/nutritional

Permissions & Licensing
Information about reproducing this article in parts (figures, tables) or in its entirety can be found online at:
http://www.neurology.org/about/about_the_journal#permissions

Reprints
Information about ordering reprints can be found online:
http://n.neurology.org/subscribers/advertise