Women’s health depends on a lifetime of answers—one test at a time.

Women and Anemia

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As an integrated Healthcare company, Siemens’ comprehensive solutions include risk assessment and early prevention, diagnosis, therapy, and aftercare. In addition, our solutions in healthcare information technology support the exchange of data for informed decisions.

Anemia is a condition in which the body does not have enough healthy red blood cells, hemoglobin or both. Red blood cells provide oxygen to body tissues. Anemia happens when:

- The body loses too much blood (such as with heavy menstrual cycles, certain diseases, and trauma).
- The body has problems making red blood cells.
- Red blood cells break down or die faster than the body can replace them with new ones.

There are many types of anemia, each with different causes:

**Iron deficiency anemia (IDA):** IDA occurs when there is not enough iron in the body, which is necessary for the body to make hemoglobin. People with this type of anemia are sometimes said to have “iron-poor blood” or “tired blood”. Iron deficiency causes approximately half of all anemia cases worldwide, and affects women more often than men.¹

**Megaloblastic anemia:** Low levels of vitamin B12 or folate are the most common causes of this type of anemia, which is most common in the elderly.

Megaloblastic anemia is infrequent in temperate zones, but is a common cause of morbidity and death in the tropics, and is a major cause of maternal death in some tropical areas.²

**Pernicious anemia:** Pernicious anemia occurs when the intestines cannot properly absorb vitamin B12. It usually develops over the age of 50, and women are more commonly affected than men. It tends to run in families, and occurs more commonly in people who have other autoimmune diseases such as thyroid diseases, Addison’s disease, and vitiligo.³
Global Statistics

- Iron deficiency is the most common and widespread nutritional disorder in the world. In addition to affecting a large number of children and women in developing countries, it is the only nutrient deficiency that is also significantly prevalent in industrialized countries.4

- Two billion people—over 30% of the world’s population—are anemic, many due to iron deficiency. In resource-poor areas, anemia is frequently exacerbated by infectious diseases.4

- In developing countries, every second pregnant woman and about 40% of preschool children are estimated to be anemic.4

- The countries highest at risk for anemia are Southeast Asia and Africa, where half of all women are affected.5

- Pernicious anemia: A female predominance has been reported in England, Scandinavia, and among persons of African descent (1.5:1). However, data in the United States shows an equal sex distribution.1

References
1. Website [Internet]. Available from: http://www.wikipedia.org/wiki/iron_deficiency_anemia
5. Website [Internet]. Available from: http://www.emedicine.medscape.com

Anemia in Pregnant Women and Non-pregnant Women by Region6

<table>
<thead>
<tr>
<th>World Region</th>
<th>Pregnant Women</th>
<th></th>
<th>Non-Pregnant Women</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Prevalence (%)</td>
<td>Number Affected (millions)</td>
<td>Prevalence (%)</td>
<td>Number Affected (millions)</td>
</tr>
<tr>
<td>Global</td>
<td>41.8 (39.9–43.8)</td>
<td>56.4 (53.8–59.1)</td>
<td>30.2 (28.7–31.6)</td>
<td>468.4 (446.2–490.6)</td>
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<tr>
<td>Africa</td>
<td>55.8 (51.9–59.6)</td>
<td>19.3 (18.0–20.7)</td>
<td>44.4 (40.9–47.8)</td>
<td>82.9 (76.5–89.4)</td>
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<tr>
<td>Asia</td>
<td>41.6 (39.0–44.2)</td>
<td>31.7 (29.7–33.6)</td>
<td>33.0 (31.3–34.7)</td>
<td>318.3 (302.0–334.6)</td>
</tr>
<tr>
<td>Europe</td>
<td>18.7 (12.3–25.1)</td>
<td>1.4 (0.9–1.8)</td>
<td>15.2 (10.5–19.9)</td>
<td>26.6 (18.4–34.9)</td>
</tr>
<tr>
<td>Latin America &amp; Caribbean</td>
<td>31.1 (21.8–40.4)</td>
<td>3.6 (2.5–4.7)</td>
<td>23.5 (15.9–31.0)</td>
<td>33.0 (22.4–43.6)</td>
</tr>
<tr>
<td>North America</td>
<td>6.1 (3.4–8.8)</td>
<td>0.3 (0.2–0.4)</td>
<td>7.6 (5.9–9.4)</td>
<td>6.0 (4.6–7.3)</td>
</tr>
<tr>
<td>Oceania</td>
<td>30.4 (17.0–43.9)</td>
<td>0.2 (0.1–0.2)</td>
<td>20.2 (9.5–30.9)</td>
<td>1.5 (0.7–2.4)</td>
</tr>
</tbody>
</table>

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Order No. A91DX-CAI-131596-GC1-4A00
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