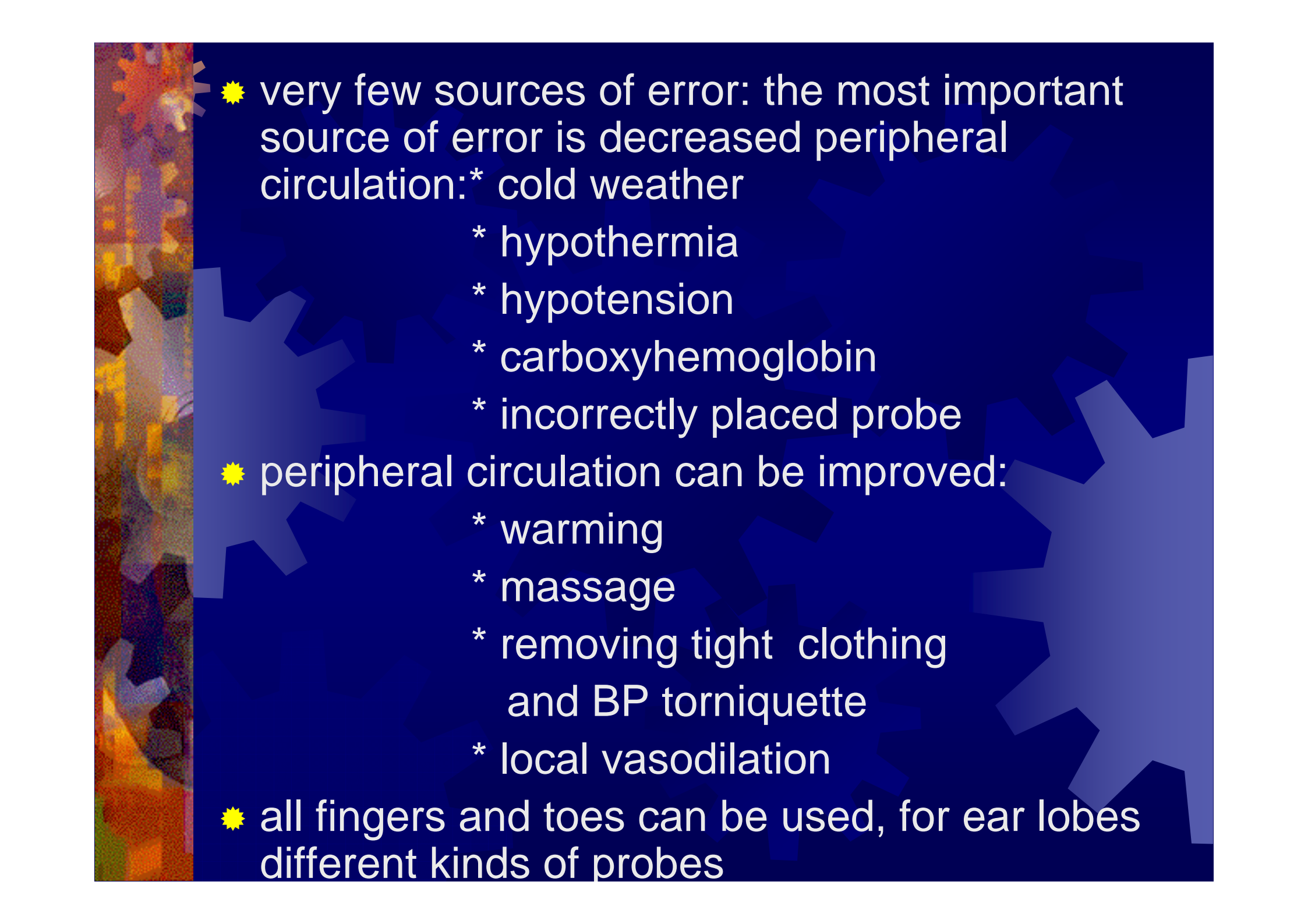
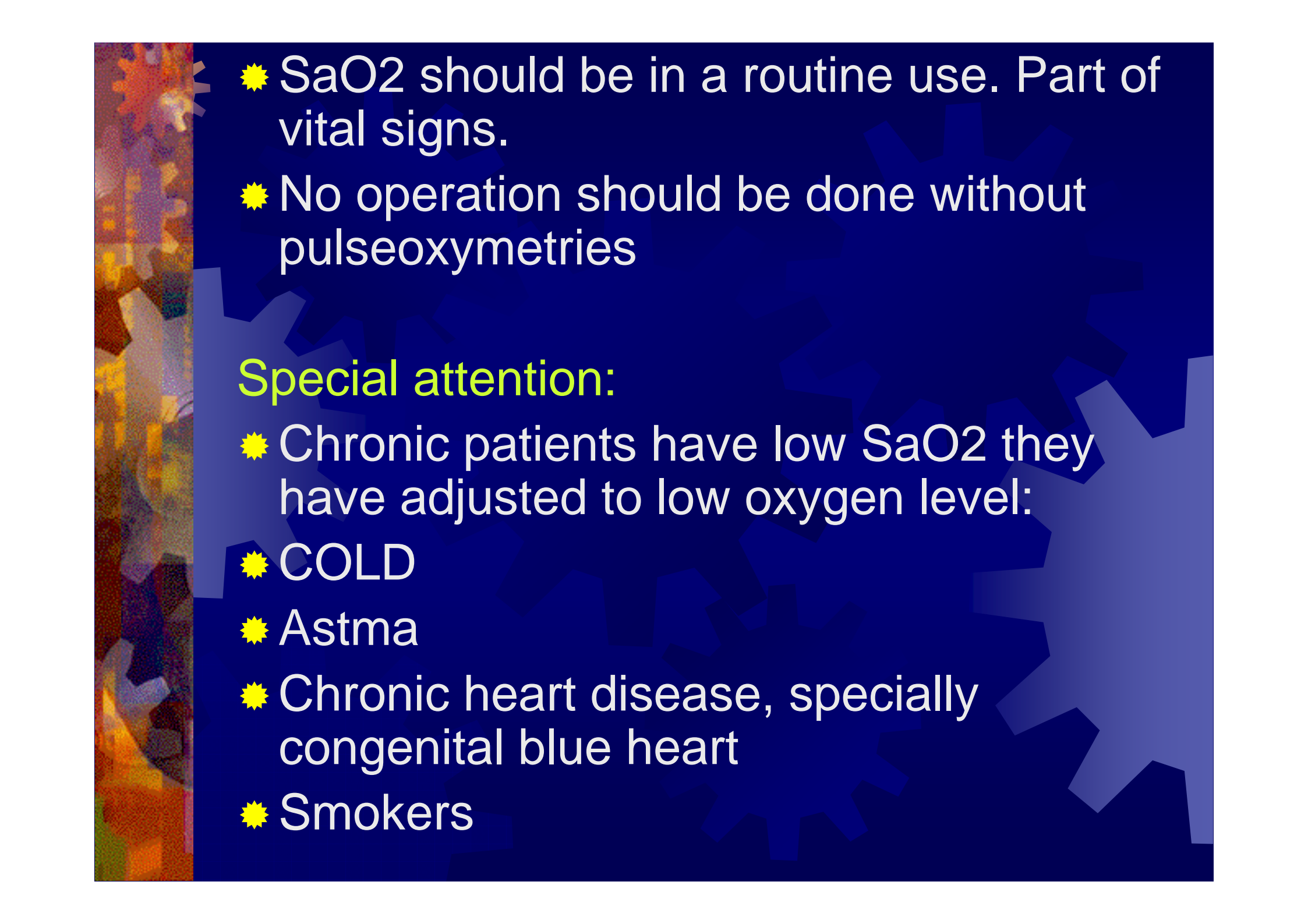


# Pulse oximetry

- ✦ blood oxygen saturation in the peripheral artery
- ✦ hypoxemia is common, difficult to detect, even an experienced clinician can detect it by cyanosis when SaO<sub>2</sub> is already 80 % or less
- ✦ pulse oximetry is easy-to-use, reliable, effective method for detecting hypoxia
- ✦ should be in wide routine clinical use: -----  
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- ✦ values: below 90 % is an indication of significant reduction in oxygen level, SaO<sub>2</sub> should be always > 90 %

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- ☀ very few sources of error: the most important source of error is decreased peripheral circulation:
    - \* cold weather
    - \* hypothermia
    - \* hypotension
    - \* carboxyhemoglobin
    - \* incorrectly placed probe
  - ☀ peripheral circulation can be improved:
    - \* warming
    - \* massage
    - \* removing tight clothing and BP tourniquette
    - \* local vasodilation
  - ☀ all fingers and toes can be used, for ear lobes  
different kinds of probes

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- ✦ SaO<sub>2</sub> should be in a routine use. Part of vital signs.
  - ✦ No operation should be done without pulseoxymetries

### Special attention:

- ✦ Chronic patients have low SaO<sub>2</sub> they have adjusted to low oxygen level:
  - ✦ COLD
  - ✦ Astma
  - ✦ Chronic heart disease, specially congenital blue heart
  - ✦ Smokers

# Pulseoxymetries from GHM USA

