



# Biomarkers of Environmental Exposures

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# Evolving Doctrine



- ❖ **Sense -- Situational Awareness**
  - ❖ **Shape -- Shape the Battlefield**
  - ❖ **Shield -- Soldier Protection**
  - ❖ **Sustain -- Maintain restore military operations**
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- **An Operational Concept for Biological Defense, Institute for Defense Analysis, 2002I**



# Bio-markers



- ❖ **Sense: exposure**
- ❖ **Shape: treatment**



# Bio-markers



- ❖ **Shield: soldiers**
- ❖ **Sustain: soldier capabilities**