5 Key Health & Safety Questions to Ask Before Implementing AI Tools in Your UK Workplace

This checklist is designed to help UK businesses thoughtfully consider the direct health and safety implications of integrating Artificial Intelligence (AI) into their workplace, ensuring responsible and legally compliant implementation.

For each question below, consider the following:

Yes: Indicates a potential area of strength in health and safety.

No: Highlights a potential health and safety risk that needs careful consideration and mitigation.

Unsure: Signifies a need for further investigation and discussion with health and safety professionals.

Question 1: Hazard Identification and Risk Assessment with AI

- Will the AI tool be used to identify potential hazards in the workplace? If so, how will its accuracy and reliability be validated by qualified health and safety professionals?

    □ Yes □ No □ Unsure

- How will the AI's risk assessments be integrated with existing health and safety risk assessment processes and legal requirements?

    □ Clearly Defined □ Partially Defined □ Not Defined □ Unsure

- Have potential biases in the AI's hazard identification and risk assessment capabilities been evaluated to ensure they don't overlook specific risks or disproportionately flag certain areas or tasks?

    □ Yes □ No □ Unsure

- Will health and safety professionals have the ability to review, challenge, and override the AI's hazard identification and risk assessment outputs?

    □ Yes □ No □ Unsure

- How will the AI tool account for dynamic changes in the workplace and update its hazard identification and risk assessments accordingly?

    □ Automated & Clear □ Manual Updates Required □ Not Addressed □ Unsure

Question 2: AI in Safety Monitoring and Intervention

- If the AI tool monitors worker behaviour or safety compliance (e.g., PPE usage), how will this data be used to improve overall safety rather than solely for disciplinary purposes, in line with best practices?

  □ Safety Improvement Focus □ Disciplinary Focus □ Unclear □ Unsure

- How will the AI system alert workers and management to potential unsafe acts or conditions in a timely and effective manner, without creating new distractions or hazards?

  □ Clear Protocols Defined □ Vague Protocols □ No Protocols □ Unsure

- Have the potential health and wellbeing impacts of constant AI monitoring on the workforce (e.g., stress, privacy concerns) been assessed and mitigated?

  □ Yes □ No □ Unsure

- If the AI tool recommends or initiates safety interventions, are the protocols for these interventions clearly defined, safe, and aligned with health and safety standards?

  □ Yes □ No □ Unsure

- How will the effectiveness of AI-driven safety monitoring and interventions be evaluated in terms of actual accident reduction and improved safety culture?

  □ Defined Metrics □ Vague Metrics □ No Metrics □ Unsure

Question 3: AI for Safety Training and Competency

- If AI is used for safety training (e.g., VR simulations), how will it ensure that the training content is accurate, up-to-date with regulations, and effectively contributes to demonstrable competency?

  □ Clear Validation Process □ Reliance on AI Output □ Unclear □ Unsure

- How will the AI training tools accommodate different learning styles and ensure accessibility for all workers, including those with disabilities?

  □ Addressed □ Partially Addressed □ Not Addressed □ Unsure

- Will human health and safety professionals be involved in the design, review, and validation of AI-driven safety training programs?

  □ Yes □ No □ Unsure

- How will the AI training tools assess and track individual worker competency in health and safety, and how will this information be integrated with existing training records in line with requirements?

  □ Clear Integration Plan □ Separate Systems □ No Plan □ Unsure

- Have the potential limitations of AI in conveying complex safety concepts or addressing unforeseen real-world scenarios been considered in the training strategy?

  Yes □ No □ Unsure

Question 4: Human-AI Interaction and Trust in Safety-Critical Decisions

- Are the roles and responsibilities of both human workers and AI tools clearly defined in safety-critical tasks?

  □ Yes □ No □ Unsure

- How will workers be trained to understand the capabilities and limitations of the AI safety tools they interact with?

  □ Specific Training Provided □ General Awareness □ No Training □ Unsure

- What mechanisms are in place to ensure workers trust and have confidence in the AI's safety-related information and recommendations?

  □ Clear Communication Strategy □ Reliance on Authority □ No Strategy □ Unsure

- How will potential over-reliance on AI and the erosion of human safety skills be mitigated?

  □ Strategies in Place □ Awareness Only □ Not Addressed □ Unsure

- In situations where human judgment may differ from the AI's output on a safety matter, what protocols will be followed in accordance with best practices?

  □ Clear Escalation Process □ Adherence to AI Output □ Unclear □ Unsure

Question 5: Ongoing Monitoring, Maintenance, and Updates of AI Safety Tools

- What processes are in place for the ongoing monitoring of the AI tool's performance, accuracy, and reliability in identifying hazards and supporting safety in the workplace?

  □ Defined Monitoring Plan □ Ad-hoc Monitoring □ No Plan □ Unsure

- How will the AI software and hardware be maintained and updated to ensure they remain effective and compliant with evolving health and safety regulations and best practices?

  □ Clear Update Schedule □ Reactive Updates □ No Clear Plan □ Unsure

- Who will be responsible for ensuring the AI system remains secure and protected from cyber threats that could compromise its safety functions?

  □ Designated Personnel □ IT Department Only □ Unclear □ Unsure

- How will the impact of any changes or updates to the AI system on workplace safety be assessed and communicated to the workforce?

  □ Defined Communication Plan □ No Clear Plan □ Unsure

- What contingency plans are in place if the AI safety tool malfunctions or becomes unavailable, ensuring that workplace safety is not compromised?

  □ Clear Backup Procedures □ Reliance on AI □ No Clear Plan □ Unsure

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Next Steps:
Review your answers to this checklist.

Any "No" or "Unsure" responses indicate areas that require further attention and discussion before implementing the AI safety tool in your UK workplace. Engaging with legal counsel, ethics experts, and your workforce is highly recommended to navigate these complex ethical considerations effectively.

This checklist is intended for general guidance and informational purposes only. It does not constitute legal or ethical advice and should not be relied upon as a substitute for professional consultation.