

Apelo de Reykjavik sobre a tecnologia sem fios nas escolas (2017)

Nós, abaixo-assinados, estamos preocupados com a saúde e o desenvolvimento das nossas crianças em escolas equipadas com tecnologia sem fios, para fim de ensino. Uma vasta quantidade de estudos científicos mostra existirem riscos médicos consideráveis pela exposição prolongada a radiação de radiofrequência (RF) de dispositivos e redes sem fio, a níveis inferiores às referências recomendados pela Comissão Internacional de Protecção contra Radiação Não-Ionizante (ICNIRP). Pedimos às autoridades que assumam a responsabilidade pela saúde e bem-estar futuros de nossos filhos.

Em Maio de 2011, a Agência Internacional de Pesquisa sobre o Cancro (IARC) da OMS classificou a RF como um cancerígeno do Grupo 2B, ou seja, possivelmente cancerígeno para humanos. Desde então, mais estudos científicos sobre a exposição à RF em humanos, animais e material biológico reforçaram a associação de um aumento do risco de cancro, especialmente tumores cerebrais. Vários estudos laboratoriais mostraram efeitos mecanísticos na carcinogénesis, como *stress oxidativo*, regulação negativa do mRNA e danos no ADN, com quebras na sequência simples da hélice. A classificação de potencial cancerígeno do IARC inclui todas as fontes de RF. A exposição às estações de base de telefones celulares, pontos de acesso Wi-Fi, telefones inteligentes, *laptops* e *tablets* pode ser de longo prazo, às vezes em torno do relógio, tanto em casa quanto na escola. Para as crianças, esse risco pode ser acentuado devido aos efeitos cumulativos de toda uma vida de utilizador. As células em desenvolvimento e imaturas também podem ser mais sensíveis à exposição a RF. Com base em estudos científicos, nenhum nível seguro dessa radiação foi estabelecido e, portanto, não temos quaisquer garantias de segurança.

Além do risco de cancro, a RF também pode afectar a barreira hemato-encefálica aumentando a sua permeabilidade, expondo o cérebro a moléculas tóxicas, ferindo os neurónios no hipocampo (o centro cerebral para a memória), desregulando para baixo ou para cima as proteínas essenciais ao cérebro, envolvidas no seu metabolismo, alterar a resposta ao *stress* e a protecção neuronal que afecta os neurotransmissores. Verificou-se que os espermatozóides expostos ao Wi-Fi apresentam mais defeitos na cabeça e danos no ADN. A RF pode aumentar o *stress oxidativo* nas células e levar ao aumento de citoquinas pró-inflamatórias e a uma menor capacidade de reparo das quebras de sequências simples e duplas de ADN.

As deficiências cognitivas na aprendizagem e na memória também foram encontradas. Os resultados das pesquisas de desempenho do PISA da OCDE em leitura e matemática mostram resultados decrescentes nos países que mais investiram na introdução de computadores na Escola. Actividades de multi-tarefas, muitas horas à frente de um ecrã, menos tempo de contactos sociais e actividades físicas, prevalência de dores no pescoço e nas costas, excesso de peso, problemas de sono e adicção à tecnologia da informação (IT) - são alguns dos riscos e efeitos colaterais conhecidos das TI, muitas vezes em marcado contraste com os alegados benefícios, em larga medida não comprovados.

Pedimos às autoridades escolares de todos os países que adquiram conhecimento sobre os riscos potenciais das RF para o crescimento e o desenvolvimento das crianças. Apoiar a opção por cabo das tecnologias educacionais é uma solução mais segura do que as exposições potencialmente perigosas da radiação sem fios (microondas). Pedimos que sigam o Princípio de ALARA (*As Low As Reasonably Achievable / tão baixo quanto razoavelmente possível*) e a Resolução 1815 do Conselho da Europa para tomar todas as medidas razoáveis de reduzir a exposição à RF.

Regras escolares práticas em relação a crianças e tecnologia sem fios:

- Nenhuma rede sem fios na pré-escola, jardim de infância e escolas.
- Recomenda-se uma conexão por cabo a cada sala de aula para o professor usar durante as aulas.
- Prefira telefones com fio para o pessoal na pré-escola, jardim de infância e escolas.
- Prefira a conexão por cabo à Internet e às impressoras nas escolas e desactive as configurações de Wi-Fi em todos os equipamentos.
- Prefira computadores que estejam conectados por cabo à Internet.
- Os alunos não devem ter permissão para usar telemóveis nas escolas. Eles podem deixá-los em casa ou ser recolhidos, em modo desligado, antes da primeira aula da manhã.

Conferência Internacional – Crianças, tempo de ecrã e radiação sem fios -
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EUA - Estados Unidos da América

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- **Lyn McLean**, Director, EMR Australia PL
- **Sarah Benson**, Retired teacher, Australia

Additional signers after the conference

Alemania

- **Jan Gerhard**, MD, Peditrician, Youth-Psychiatrist, Bünsdorf, Germany
- **Dietrich Moldan**, Dr, Moldan Umweltanalytik, Iphofen, Germany
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Apêndice para mais leituras.

Referências

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