THE TIP OF THE ICEBERG EMF/RF HEALTH IMPACTS IS EMERGING WE ARE PROMOTING REDUCTION OF CHILDREN EXPOSURE AND PROFYLAXIS

Dr. Stella Canna Michaelidou

President of the Cyprus National Committee on
Environment and Children's Health

"We aim to minimize avoidable environmentally linked diseases and disabilities, by reducing children's exposure to risk factors"





CYPRUS NATIONAL COMMITTEE ON ENVIRONMENT AND CHILDREN'S HEALTH

A Multidisciplinary, scientific Comm. appointed by the Council of Ministers. Activities are financed by Min. of Health.

Our mandate To provide <u>scientific support/advice</u> to the Minister of Health, other Ministers, Regulators and Decision Makers. In particular to

To ADDRESS EMERGING, scientifically documented but not yet FULLY

DEFINED or REGULATED RISKS & to insure PROMPT RESPONSE Based

on Precautionary Princible, training and Awareness RaisinG

WHY we are addressing wireless technology (mobile phones, Wi-Fi, Bluetooth, DECT baby monitors, tablets etc)

- 1. Exposure is Unique, affecting entire population it is multiple, intermittent. Child exposure starts from embryo to adolescent Rapid unconditional integration of wireless tech in Schools
- Legislation based on (ICNIRP)
 EC Recom. 1999/519
- <u>Does not address long</u> term well documented biological effects (happening at extremely lower levels), nor Potential Carcinogenicity. It does not address <u>enhanced exposure and vulnerability</u> of foetuses & children.

- 3. <u>Uncertain Safety</u> of the Technology. Emerging devices <u>without</u> <u>premarket testing</u> especially for long term effects on children
- 4. People are not

 adequately informed
 about the risks and may
 have erroneous
 perceptions of safety
 - 5. <u>Good Practices</u> and alternatives DO EXIST to reduce exposure



Children Exposure to EMF/RF a possible carcinogen and neurotoxicant: The reality of 21st Century





ADDITIVE



MULTIPLE

2018....

INTERMITTENT

ACTIVE & PASSIVE

IT STARTS
AND
CONTNUES
THROUOGH
VULNERABLE
STAGES
EMBRYO TO
ADULECENCE



No previous generation has been exposed during childhood and adolescence to this kind of radiation Hardell, L. (2017), The largest full-scale experiment ever Ole Johansson 2017, preentation

1999



Children Exposure to EMF/RF a possible carcinogen and neurotoxicant: The reality of 21st Century





Undisputable FACTS and not only

The exposure for a 3-year old child (compared to an adult) is up to twice in brain tissues up to 10x marrow bone





PRESS RELEASE N° 208 31 May 2011

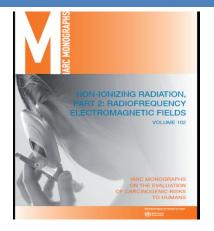
IARC CLASSIFIES RADIOFREQUENCY ELECTROMAGNETIC FIELDS AS POSSIBLY CARCINOGENIC TO HUMANS

Lyon, France, May 31, 2011 -- The WHO/International Agency for Research on Cancer (IARC) has classified radiofrequency electromagnetic fields as <u>possibly carcinogenic to humans (Group 2B)</u>, based on an increased risk for <u>glioma</u>, a malignant type of brain cancer¹, associated with wireless phone use.

This classification applies to all RF-emitting devices, including WiFi.

- Robert A. Baan, PhD, IARC

 Studies used include: case-control, cohort, registries, and in vitro and in vivo toxicology



"The average RF radiation energy deposition for children exposed to mobile phone RF is two times higher in the brain and 10 times higher in the bone marrow of the skull compared with mobile phone use by adults."

 International Agency for the Research on Cancer Monograph on Radio Frequency Fields as a Class 2 B Carcinogen



HOW we are addressing the risks of wireless technology

• Campaign 2014-2018 "Home and School, an OASIS of PROTECTION from the radiation of mobile phones, Wi-Fi, and other wireless devices".

POLICY Level

An open dialogue to avoid Wi-Fi:

- * Min. of Education
- * Min. Of Health
- * Parliament
- * Environment Commissioner

FOCUS ON HOUSE AND SCHOOLS ... where children spend app 60-90% of there time

Awareness Raise & Promote Precautionary attitudes PARENTS

Training and education

- **Paediatricians**
- Health care providers
- Teachers
- children



World Child Day Press conference By the Minister of Health Dr G. Pamborides 11/12/2015: A LAND MARK EVENT!

Campaign "Awareness raise to reduce exposure and protect children from EMF/RF"

A LAND MARK EVENT

- √ The need for Protection of Children from EMFse accepted by all
- ✓ Strong support and commitment for Precautionary actions by the Minister of Health

Joined event with 3 MINISTRIES Health, Education & Communication The Environment Commissioner the National

Committee



Wi-Fi: Cause passive and Active exposure



Scientific reality

the average Wi-Fi emitted energy is much lower than from bile but

Mythos

WI-FI HAVE PULSES & PEAKS OF VERY HIGH INTENSITY -BIOACTIVITY

- Because
 the energy
 emitted is
 relatively
 low WiFi is
- 2. EXPOSURE DURATION CAN be VERY LONG FOR SOME HOURS up to 24h
- 3. Wi-Fi depletes antioxidants and creates prooxidant oxidative stress that damages DNA, cell structures, membranes, and more (Martha Herbert, 2016)
- 4. Recent Review (2018) of 100 studies reveal damage to the reproductive system, brain functions, heart, liver, thyroid, gene expression, cell cycle, cell membranes, bacteria, and plants, on learning, memory, attention, and behaviour Wilke I: umwelt · medizin



DEGGREE OF THE MIN. OF EDUCATION Jan 2017



ΔΙΕΥΘΥΝΣΗ ΔΗΜΟΤΙΚΗΣ ΕΚΠΑΙΔΕΥΣΗΣ

Αρ. Φακ.: 16.08.04/2 Αρ. Τηλ.: 22800876 Αρ. Φαξ: 22428277

31 Ιανουαρίου 2017

KATEПЕІГОN

Διευθυντές/Διευθύντριες Νηπιαγωγείων και Δημοτικών Σχολι

> <u>Θέμα:</u> Εγκατάσταση και χρήσ Δημοτικής και

Αναφορικά με το πιο πάνω θέμα, π.

Εξετάζοντας την πληροφόρηση από το Υπουργείο Υγείας, με την ε 10 Μαρτίου 2016 (επισυνάπτεται), ασύρματου δικτύου Wi-Fi στα δημέ τις μετρήσεις που καταγράφονται σ του Υπουργείου Μεταφορών σε δ συγκεκριμένες μετρήσεις είναι κατ έκθεσης σε ηλεκτρομαγνητικά πεδί μαθητών σε αυτά θεωρείται ως εντε

- 2. Εντούτοις, οφείλουμε να τον δικαίωμά του, υπό το φως των εξελ εθνικά όρια έκθεσης στα ηλεκτρομι αυστηρότερων κριτηρίων. Επομέν Προφύλαξης και ληφθούν συγκεκρι νια τους μαθητές οι οποίοι φοιτς Εκπαίδευσης.
- 3. Με βάση τα πιο πάνω, έχουμε Fi απενεργοποιηθεί σε όλα τα

απενεργοποίησή του, καλούνται οι εκπαισεστικοί των Δημοσίων ταιμπαγωγείων επικοινωνήσουν με την CY.Τ.Α. για την παροχή σχετικών οδηγιών.

4. Συστήνουμε, επίσης, όπως η χρήση ασύρματου δικτύου Wi-Fi στα δημοτικά σχολεία περιορίζεται στο Γραφείο Διευθυντή, στο Γραφείο Γραμματείας και στην

Wi-Fi at nurseries and classrooms of public elementary schools is PROHIBITED & wired Internet must be promoted!

ασύρματου δικτύου. αυτοί οφείλουν:

ιαιδιών, έτσι ώστε τα δεν χρησιμοποιούνται

Αίθουσα Διδακτικού Προσωπικού, όπου το Wi-Fi μπορεί να χρησιμοποιείται για διοικητικούς σκοπούς. Τονίζουμε ότι το Υπουργείο Παιδείας και Πολιτισμού, μέχρις ότου προκύψουν νέα δεδομένα με βάση τις Ευρωπαϊκές σταθερές που θα τεθούν

μελλοντικά αναφορικά με τη χρήση του συγκεκριμένου δικτύου σε σχολεία Δημοτικής

Εκπαίδευσης, δεν προτίθεται να προχωρήσει στην εγκατάσταση ασύρματων σημείων

πρόσβασης Wi-Fi σε αίθουσες διδασκαλίας δημοτικών σχολείων. Επομένως, στα

σχολεία που κρίνεται αναγκαίο, λόγω των αναλυτικών ή άλλων προγραμμάτων και δράσεων (π.χ. Ευρωπαϊκά Προγράμματα και Προγράμματα του Παιδαγωγικού

Ινστιτούτου Κύπρου κ.ά.) οι εκπαιδευτικοί ή και οι μαθητές να κάνουν χρήση

ύρματου δικτύου από τη του συγκεκριμένου έπει να εξασφαλίζει υν τα παιδιά τους θα ιέλλοντας επιστολή ιύρματου δικτύου.

μοτικής Εκπαίδευσης όλες τις αίθουσες ιξιοποιείται όποτε και

(Χρίστος Χατζηαθανασίου) Αν. Διευθυντής Δημοτικής Εκπαίδευσης



To foster Children's
Health and academic
achievement, healthy
school environment must
be addressed and
integrated within
education system
(Davis D. EHT)

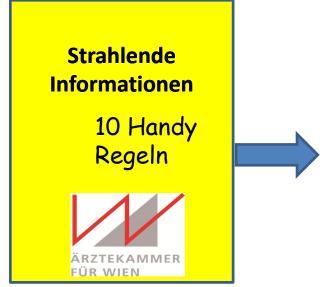
In Schools the "Alara" and
"Precautionary Principle" should be
applied by low EMF classrooms,
specifying low EMF IT equipment and
wired internet access network and in
general low -EMF user practices (Davis
D. EHT)

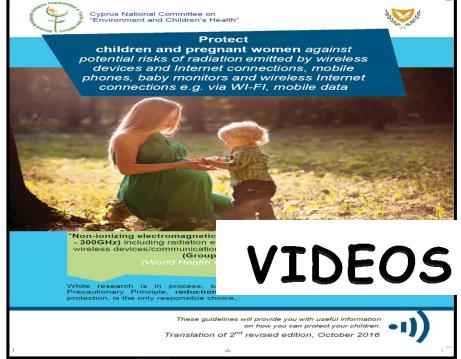
At home and school connect with wires Computers Tablet Gaming devices Routers Printer Mouse Keyboard



.----naelidou









GRIECHISCHE BOTSCHAFT IN WIEN

Nicosia Declaration 2017 on Electromagnetic Fields/Radiofrequencies

16 Practical rules,

WHAT is Next???

Vienna 18 May

Symposium on Safe Use of Digital Technology"

rom fascination to addiction & update on potential health impacts $c_{\text{FÜR WIEN}}^{\text{RZTEKAMM}}$ non-ionizing radiation from EMF/RF . A follow up from the Nicosia Declaration 2017



Medical Associations of Vienna/Austria/Cyprus and the Committee on Environment and Child Health,

Potential Health Impacts

carcinogenicity
developmental neurotoxicity,
effects on DNA, on fertility, Hypersensitivity.
oxidative stress, Cognitive impairments in learning
and memory

Some of the Effects not yet fully established but .

There is Strong evidence for precautionary actions ...

NOW

KEY Declaration Recommendations to Policy makers, Health Professionals, teachers and Parents

- <u>Limits need to be revised</u> but in the mean time existing science based / <u>biological relevant criteria must be</u> <u>applied to evaluate children's exposure from devices or infrastructures</u>.
- age related rational application of digital technology
- not allow wireless networks at schools, particular at preschool, kindergarten and elementary schools and opt for wired connections.,
- At home and schools the use of mobile phones and other wireless devices must be minimized.

Final Thoughts

Even if we accept that biological effects, despite the growing concrete evidence, are not yet "fully established", we should not underestimate that:

- 1. The safety of the fast emerging technology in most of the cases has not been tested <u>nor proved for short term or long term</u> <u>health impacts</u>
- 2. Potential effects on children in particular e.g cognitive, neurological, carcinogenic etc are serious and not yet fully deployed!!

Can we risk our children's future waiting for full evidence, allowing

them to become potential "experimental animals"?

We can and must reduce the EXPOSURE. By applying PRECAUTION and

Rational Technology application until LONG TERM SAFETY is CONCLUSIVELY

PROVED BASED ON APROPRIATE INDEPENDENT RESEARCH. We mu

push for safer REGULATIONS ADJUSTED TO CHILDREN SPECIFICITIES (ANSES

PROMOTE RESEARCH ADDRESSING CHILDREN VULNERABILITY & EXPOSUR

