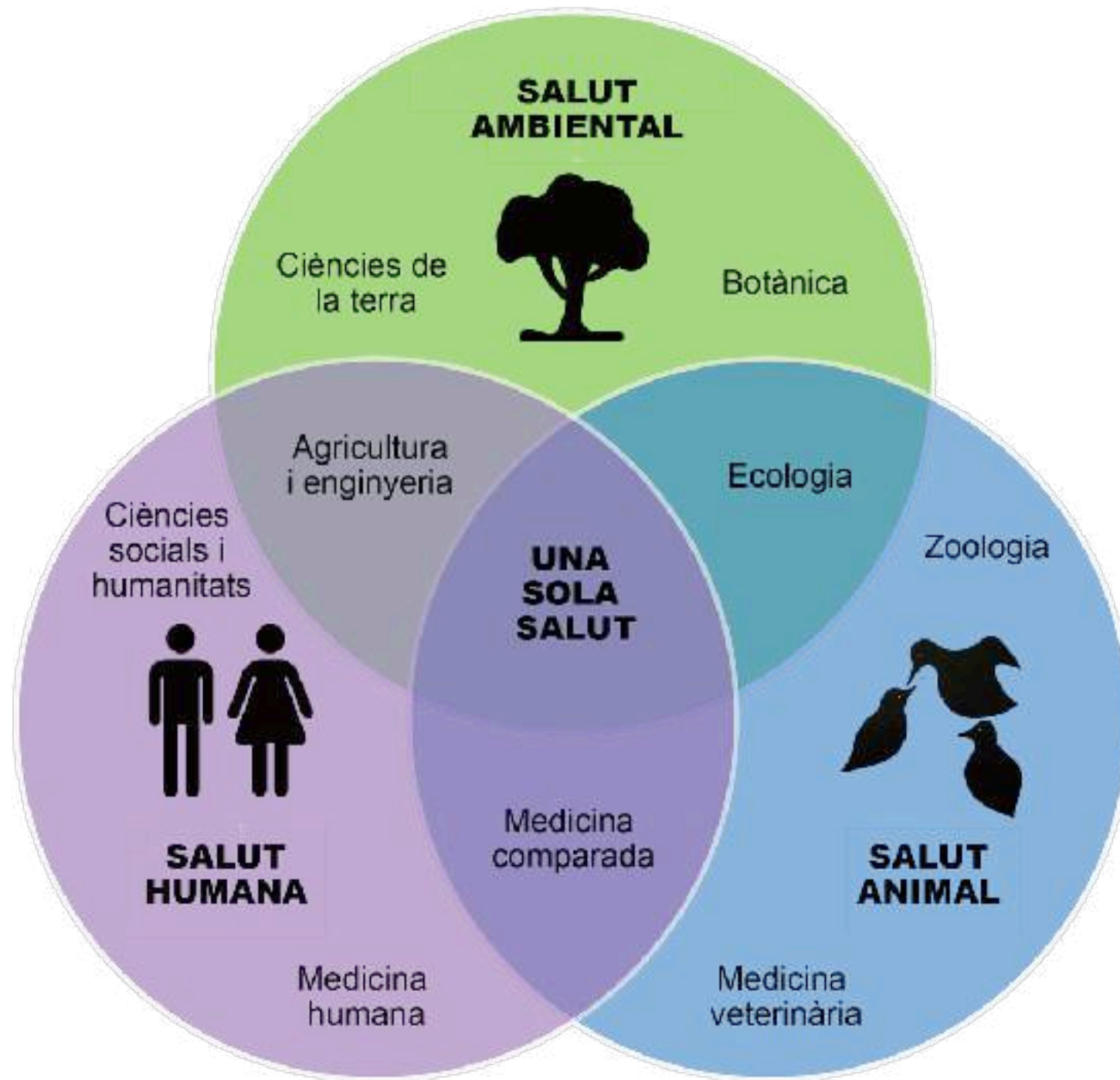


Salut i Natura

Ferran Campillo i López, M.D.

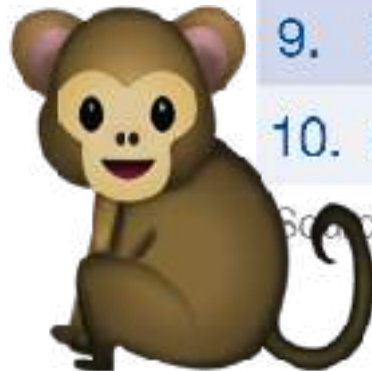
Unitat de Salut Mediambiental Pediàtrica

Equip Pediàtric Territorial de la Garrotxa
Fundació Hospital d'Olot i Comarcal de la Garrotxa, Olot



These are the 10 biggest threats to global health in 2019

Based on rankings from the World Health Organization



1. Air pollution and climate change

2. Noncommunicable diseases

3. Global influenza pandemic

4. Fragile and vulnerable settings

5. Antimicrobial resistance

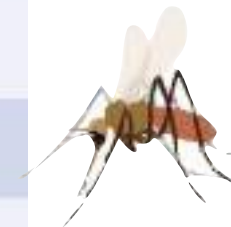
6. Ebola and other high-threat pathogens

7. Weak primary healthcare

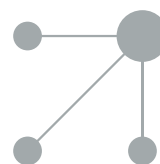
8. Vaccine hesitancy

9. Dengue fever

10. HIV



Source: World Health Organization



ASOCIACIÓN ESPAÑOLA DE PEDIATRÍA

Amenazas, desafíos y oportunidades para la salud medioambiental pediátrica en Europa, América Latina y el Caribe

Juan Antonio Ortega-García^{a,p,n,*}, Lydia Tellerías^b, Josep Ferrís-Tortajada^{a,p}, Elena Boldo^{c,p}, Ferran Campillo-López^{a,d}, Peter van den Hazel^{e,p}, Sandra Cortes-Arancibia^{b,f}, Rebeca Ramis^{c,p}, Marisa Gaioli^g, Rebeca Monroy-Torres^{h,i}, Constanza Farias-Guardia^{j,p}, Mirta Borrás^k, Karla Yohannessen^{b,l,p}, Marcelino García-Noriega-Fernández^{a,m}, Alberto Cárceles-Álvarez^{p,n}, Diana Carolina Jaimes-Vegaⁱ, Marcia Cordero-Rizo^{i,o,p}, Fernando López-Hernández^{p,q} y Luz Claudio^{p,r}

^a Comité de Salud Medioambiental, Asociación Española de Pediatría (AEP), España

^b Comité de Salud Medioambiental, Sociedad Chilena de Pediatría (SOCHIPE), Chile

^c Área de Epidemiología Ambiental y del Cáncer, Centro Nacional de Epidemiología, Instituto de Salud Carlos III, CIBER en Epidemiología y Salud Pública-CIBERESP, Madrid, España

^d Unitat de Salut Mediambiental Pediàtrica, Hospital d'Olot i Comarcal de la Garrotxa, Olot, Girona, España

^e International Network on Children's Health, Environment and Safety (INCHES), Países Bajos

^f Departamento de Salud Pública, Pontificia Universidad Católica de Chile, Santiago, Chile

^g Comité de Salud Infantil y Ambiente, Sociedad Argentina de Pediatría (SAP); Hospital de Pediatría JP Garrahan, Buenos Aires, Argentina

^h Observatorio Universitario de Seguridad Alimentaria y Nutricional, Universidad de Guanajuato, Guanajuato, México

ⁱ Red Iberoamericana de Salud Ambiental Infantil (SAMBI)

^j Salud Ambiental, Siprota, Ministerio de Salud, Tucumán, Argentina

^k Servicio de Toxicología Ambiental y Ocupacional, Hospital Fernández, Grupo de Trabajo de Adicciones del Adolescente; Sociedad Argentina de Pediatría (SAP), Buenos Aires, Argentina

^l Programa de Salud Ambiental, Escuela de Salud Pública, Universidad de Chile, Santiago, Chile

^m Servicio de Pediatría, Hospital Valle del Nalón, Langreo, Asturias, España

ⁿ Pediatric Environmental Health Speciality Unit, Hospital Clínico Universitario Virgen de la Arrixaca, Murcia, España

^o Universidad Nacional Autónoma de Nicaragua (UNAN), Managua, Nicaragua

^p Network Environment, Survival and Childhood Cancer (ENSUCHICA) in Europe and Latin America

^q Departamento de Métodos Cuantitativos, Universidad Politécnica de Cartagena, Cartagena, Murcia, España

^r Division of International Health, Mount Sinai School of Medicine, Nueva York, NY, Estados Unidos

- **Cambio climático.**
- **Contaminación de aire y suelo.**
- **Alimentos y malnutrición.**
- **Seguridad del «agua vida».**
- **Drogas legales e ilegales.**
- **Deforestación y desertificación.**
- **Salud de mares y océanos.**
- **Falta del contacto con la naturaleza.**
- **Pobreza e injusticia ambiental**









Contacte amb la natura

- Beneficis en salut dels infants i adolescents:
 - Salut mental.
 - Funció pulmonar.
 - Millor rendiment acadèmic.
 - Millors nivells de vitamina D.
 - Tractament i prevenció d'excés de pes.
 - Control de malalties cròniques, trastorns del comportament, addicions....

Ortega-García JA, Cárceles-Álvarez A, Vicente-Calderón C. Trastorno por déficit de naturaleza: ¿hipótesis o realidad? Urgencias en pediatría. 2015;12(1):1-2.

Coventry PA, Brown JE, Pervin J, Brabyn S, Pateman R, Breedvelt J, et al. Nature-based outdoor activities for mental and physical health: Systematic review and meta-analysis. SSM - Popul Heal. 2021;16:100934.

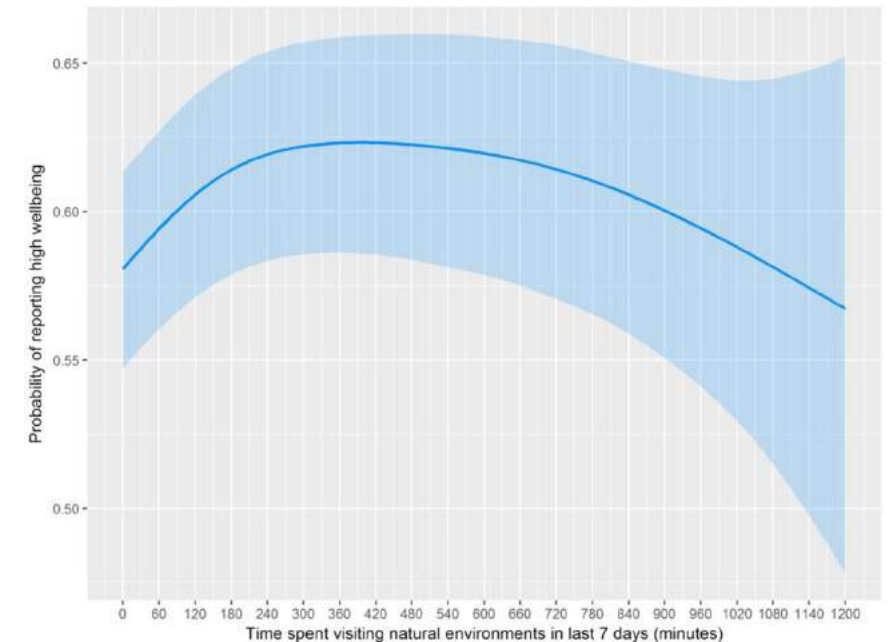
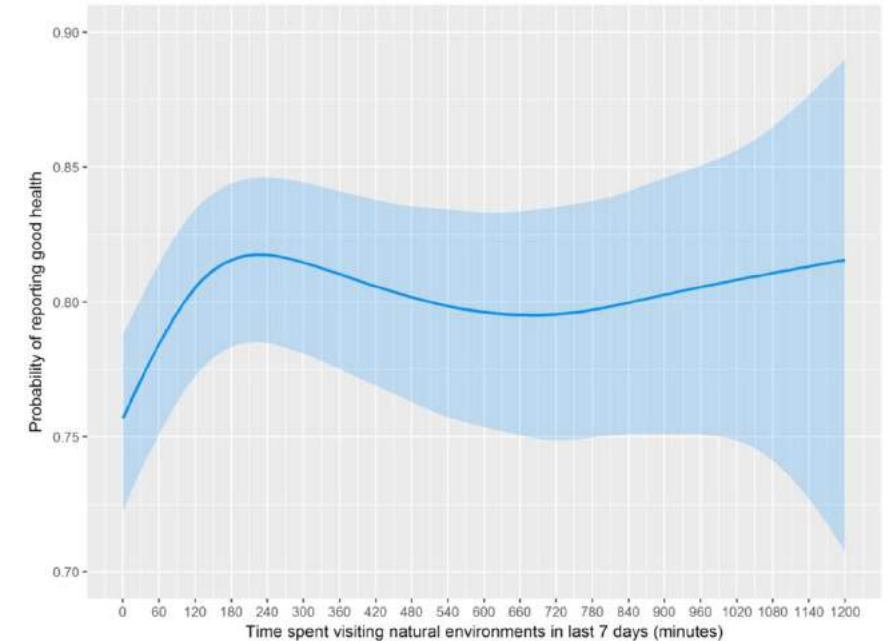


OPEN

Spending at least 120 minutes a week in nature is associated with good health and wellbeing

Mathew P. White¹, Ian Alcock¹, James Grellier¹, Benedict W. Wheeler¹, Terry Hartig², Sara L. Warber^{1,3}, Angie Bone¹, Michael H. Depledge¹ & Lora E. Fleming¹

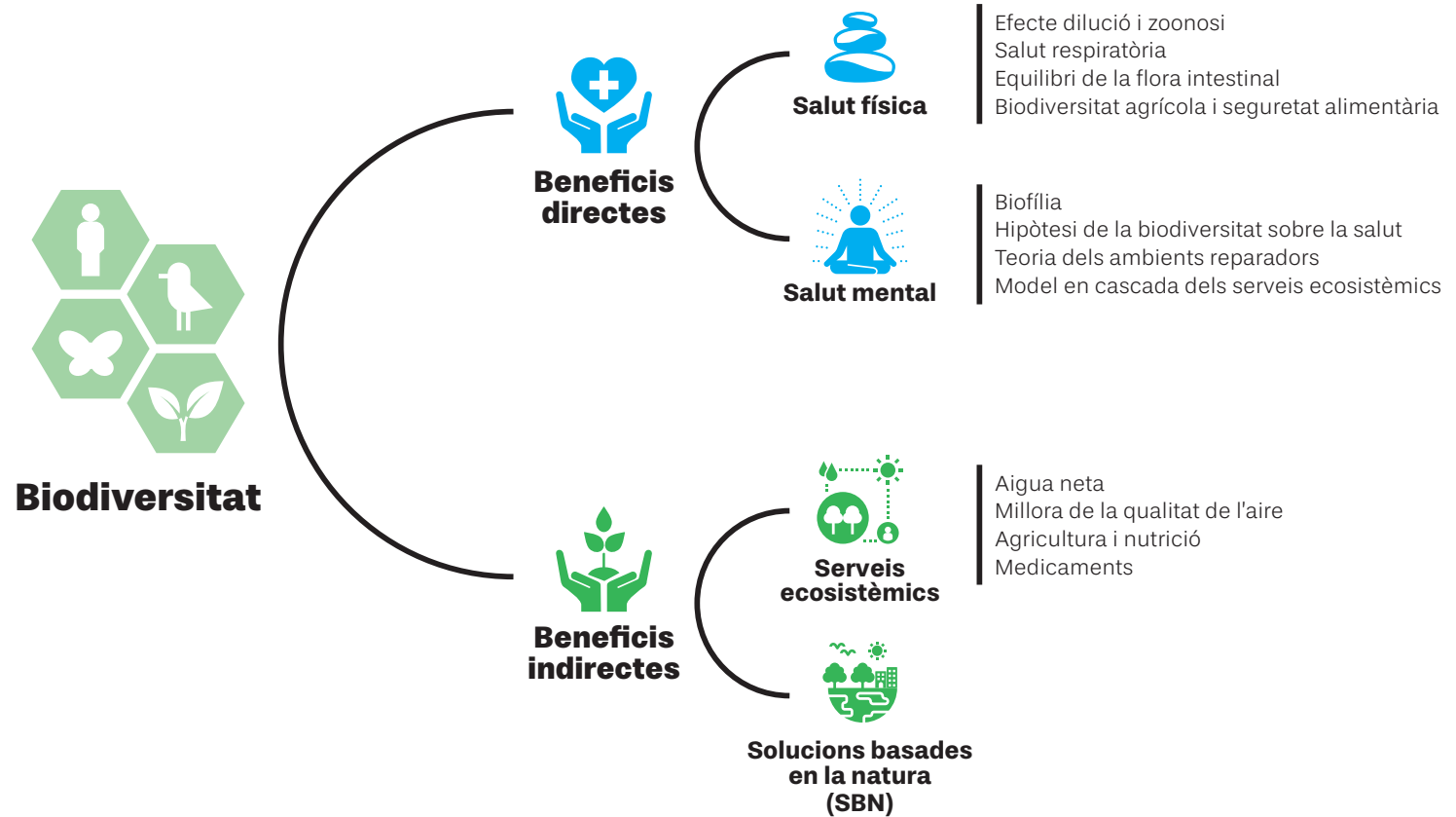
Spending time in natural environments can benefit health and well-being, but exposure-response relationships are under-researched. We examined associations between recreational nature contact in the last seven days and self-reported health and well-being. Participants ($n = 19,806$) were drawn from the Monitor of Engagement with the Natural Environment Survey (2014/15–2015/16); weighted to be nationally representative. Weekly contact was categorised using 60 min blocks. Analyses controlled for residential greenspace and other neighbourhood and individual factors. Compared to no nature contact last week, the likelihood of reporting good health or high well-being became significantly greater with contact ≥ 120 mins (e.g. 120–179 mins: ORs [95% CIs]: Health = 1.59 [1.31–1.92]; Well-being = 1.23 [1.08–1.40]). Positive associations peaked between 200–300 mins per week with no further gain. The pattern was consistent across key groups including older adults and those with long-term health issues. It did not matter how 120 mins of contact a week was achieved (e.g. one long vs. several shorter visits/week). Prospective longitudinal and intervention studies are a critical next step in developing possible weekly nature exposure guidelines comparable to those for physical activity.



White MP, Alcock I, Grellier J, Wheeler BW, Hartig T, Warber SL, et al. Spending at least 120 minutes a week in nature is associated with good health and wellbeing OPEN. Sci Rep. 2019 Dec 1;9(1).

Maig 2021

Biodiversitat i salut



Beneficis de
la biodiversitat per
a la salut
Font: Barcelona Regional

Biodiversitat a l'escola

- A **llars d'infants**: activitat física, seguretat, benestar, relació amb l'entorn.
 - Amb **classes a l'aire lliure**: Benestar, humor i connectivitat amb la natura.
 - A les escoles: **alimentació** més saludable.
- Puhakka R, Rantala O, Roslund MI, Rajaniemi J, Laitinen OH, Sinkkonen A. Greening of daycare yards with biodiverse materials affords well-being, play and environmental relationships. Int J Environ Res Public Health . 2019 Aug 2;16(16).
 - Harvey DJ, Montgomery LN, Harvey H, Hall F, Gange AC, Watling D. Psychological benefits of a biodiversity-focussed outdoor learning program for primary school children. J Environ Psychol. 2020 Feb 1;67.
 - Fischer LK, Brinkmeyer D, Karle SJ, Cremer K, Huttner E, Seebauer M, et al. Biodiverse edible schools: Linking healthy food, school gardens and local urban biodiversity. Urban For Urban Green. 2018;(February).



Biodiversitat a casa

- Als **espais verds al voltant de casa: Menys bronquitis.**
 - Tischer C, Gascon M, Fernández-Somoano A, Tardón A, Materola AL, Ibarluzea J, et al. Urban green and grey space in relation to respiratory health in children. Eur Respir J. 2017;49(6):1-12.
- **Flora autòctona al voltant de casa: menys atòpia.**
 - Hanski I, Von Hertzen L, Fyhrquist N, Koskinen K, Torppa K, Laatikainen T, et al. Environmental biodiversity, human microbiota, and allergy are interrelated. Proc Natl Acad Sci U S A. 2012;109(21):8334-9.
- Entorn **agrícola** poc biodivers, més **al·lèrgens**
 - Liddicoat C, Bi P, Waycott M, Glover J, Lowe AJ, Weinstein P. Landscape biodiversity correlates with respiratory health in Australia. J Environ Manage. 2018;206:113-22.





Biodiversitat al barri

- **Ocells:**
satisfacció amb la vida (similar a una paga extra).
- Methorst J, Rehdanz K, Mueller T, Hansjürgens B, Bonn A, Böhning-Gaese K. The importance of species diversity for human well-being in Europe. Ecol Econ. 2021 Mar 1;181:106917.
- A **jardins comunitaris:**
autonomia,
comportament adaptatiu i habilitats interactives de nens amb **TEA**.
- Scartazza A, Mancini ML, Proietti S, Moscatello S, Mattioni C, Costantini F, et al. Caring local biodiversity in a healing garden: Therapeutic benefits in young subjects with autism. Urban For Urban Green. 2020;47(March):126511.



LEEDS
BECKETT
UNIVERSITY



Social Return on Investment
analysis of the health and wellbeing
impacts of **Wildlife Trust** programmes



Protecting **Wildlife** for the Future

The analysis found:

- A SROI value of **£6.88** for every £1 invested, for people with **low wellbeing** at baseline, who were part of a targeted programme.
- A SROI value of **£8.50** for every £1 invested, for people with **average to high wellbeing** at baseline, who were part of a nature conservation volunteering programme.

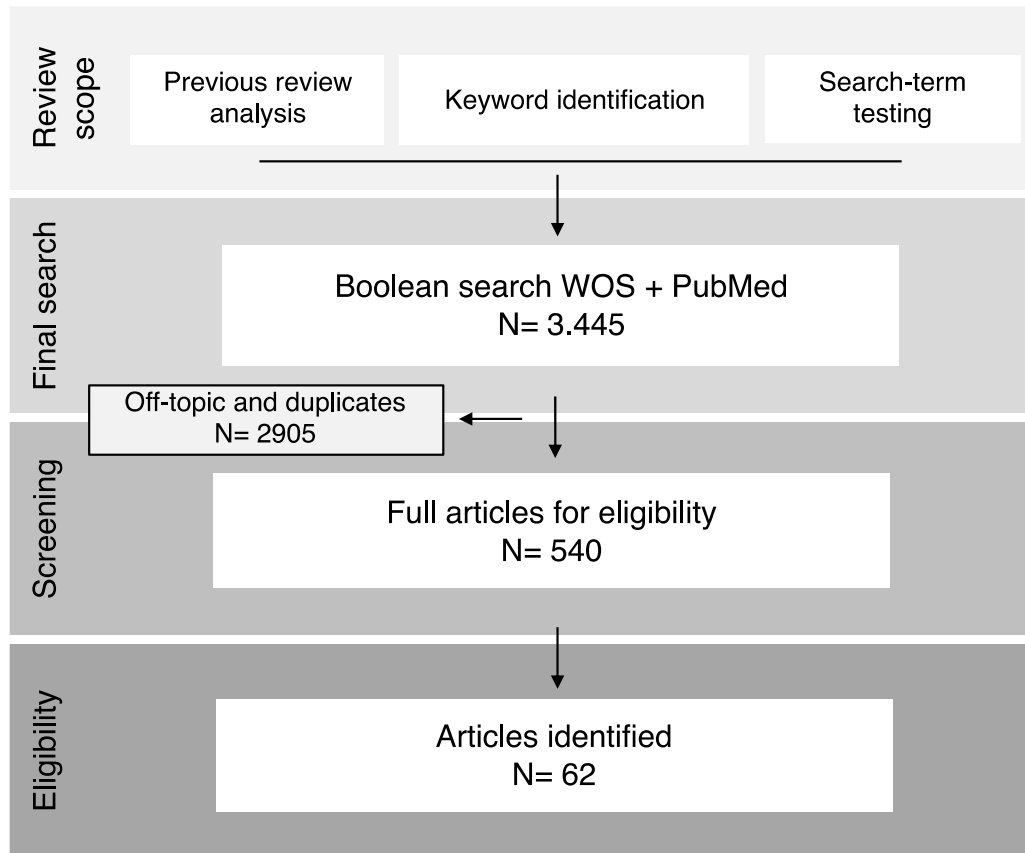
Bagnall A-M, Freeman C, Southby K, Brymer E. Social Return on Investment analysis of the health and wellbeing impacts of Wildlife Trust programmes. Leeds; 2019 Sep [cited 2022 Mar 25]. Disponible a: https://www.wildlifetrusts.org/sites/default/files/2019-09/SROI_ReportFINAL-DIGITAL.pdf

Boscós i salut humana

- Evidències creixents, però limitades (número d'estudis, metodologia, tipus d'estudis, pacients sans).
- Globalment impacte positiu en salut, però encara molts estudis no concloents, amb resultats no significatius o clínicament no rellevants.
- Més estudiats: tensió arterial, freqüència cardíaca i cortisol.
- Múltiples variables en salut (cardiovasculars, immunitari, estrès oxidatiu, metabòlic, funció pulmonar, salut mental i benestar...).

Elements del bosc

-REVISIÓ SISTEMÀTICA DE LA LITERATURA



Bach Pagès A, Peñuelas J, Clarà J, Llusà J, Campillo i López F, Maneja R. How Should Forests Be Characterized in Regard to Human Health? Evidence from Existing Literature. Int J Environ Res Public Health. 2020 Feb 6;17(3):1027. Disponible a: <https://www.mdpi.com/1660-4601/17/3/1027>

Elements del bosc

#	Author(s) year	Study title	Country	Study type	Exposure, RE Type	Population	N	Participants
1	Y. Takeda et al., 2019	Effects of averaged forest versus unmanaged forest on physiological responses to a stress stimulus, and the relationship with individual traits	Japan	Comparative	Passive	Men/40s	47	
2	A. Oda et al., 2017	Investigating the relaxation effects of emerging forest therapy tourism: A multi-disciplinary approach through sensory analysis and heart rate variability analysis: An intervention study	Japan	Before-after	Pre-acute	Men	42	
3	Y. Yoshida et al., 2014	Forest as a strategy to reduce forest pressure after forest walking in old-growth and young forests	Japan	Before-after	Passive	Men/40s	52	
4	S. Lee & Lee, 2014	Cardiac and pulmonary benefits of forest walking versus city walking in elderly women: A randomized	South Korea	Control test	Passive	Men/40s	42	
5	Y. Lee et al., 2015	Effect of forest bathing on physiological and psychological responses in young Japanese male subjects	Japan	Control test	Passive	Men/40s	62	
6	T. Aoyagi et al., 2015	Effect of Forest Walking on Autonomic Nervous System Activity in Middle-aged Hypertensive Individuals: A Pilot Study	Japan	Control test	Passive	Men/40s	40	
7	K. Nakai et al., 2015	Effects of forest bathing on sleep quality, stress and mood in Japanese women	South Korea	Before after	Pre-acute	Men/40s	50	
8	T. Nakai et al., 2017	Effects of Forest Bathing Program on Autonomic Nervous System Activity and Mood States in Middle-Aged and Elderly Individuals	Taiwan	Before after	Pre-acute	Men/40s	100	
9	T. Nakai et al., 2019	Effects of Walking in a Forest on Young Women	China	Control test	Passive	Men/40s	80	
10	Y. Nakai et al., 2019	Effects of Walking in Bamboo Forest and City Environment on Immersive Activity in Young Adults	China	Control test	Passive	Men/40s	80	
11	T. Nakai et al., 2019	Effects of Forest Bathing on Autonomic Nervous System Activity and Mood States in Middle-Aged and Elderly Individuals	Japan	Control test	Passive	Men/40s	100	
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80	T. Nakai et al., 2019	Effects of Forest Bathing on Autonomic Nervous System Activity and Mood States in Middle-Aged and Elderly Individuals	Japan	Control test	Passive	Men/40s	100	
81	T. Nakai et al., 2019	Effects of Forest Bathing on Autonomic Nervous System Activity and Mood States in Middle-Aged and Elderly Individuals	Japan	Control test	Passive	Men/40s	100	
82	T. Nakai et al., 2019	Effects of Forest Bathing on Autonomic Nervous System Activity and Mood States in Middle-Aged and Elderly Individuals	Japan	Control test	Passive	Men/40s	100	
83	T. Nakai et al., 2019	Effects of Forest Bathing on Autonomic Nervous System Activity and Mood States in Middle-Aged and Elderly Individuals	Japan	Control test	Passive	Men/40s	100	
84	T. Nakai et al., 2019	Effects of Forest Bathing on Autonomic Nervous System Activity and Mood States in Middle-Aged and Elderly Individuals	Japan	Control test	Passive	Men/40s	100	
85	T. Nakai et al., 2019	Effects of Forest Bathing on Autonomic Nervous System Activity and Mood States in Middle-Aged and Elderly Individuals	Japan	Control test	Passive	Men/40s	100	
86	T. Nakai et al., 2019	Effects of Forest Bathing on Autonomic Nervous System Activity and Mood States in Middle-Aged and Elderly Individuals	Japan	Control test	Passive	Men/40s	100	
87	T. Nakai et al., 2019	Effects of Forest Bathing on Autonomic Nervous System Activity and Mood States in Middle-Aged and Elderly Individuals	Japan	Control test	Passive	Men/40s	100	
88	T. Nakai et al., 2019	Effects of Forest Bathing on Autonomic Nervous System Activity and Mood States in Middle-Aged and Elderly Individuals	Japan	Control test	Passive	Men/40s	100	
89	T. Nakai et al., 2019	Effects of Forest Bathing on Autonomic Nervous System Activity and Mood States in Middle-Aged and Elderly Individuals	Japan	Control test	Passive	Men/40s	100	
90	T. Nakai et al., 2019	Effects of Forest Bathing on Autonomic Nervous System Activity and Mood States in Middle-Aged and Elderly Individuals	Japan	Control test	Passive	Men/40s	100	
91	T. Nakai et al., 2019	Effects of Forest Bathing on Autonomic Nervous System Activity and Mood States in Middle-Aged and Elderly Individuals	Japan	Control test	Passive	Men/40s	100	
92	T. Nakai et al., 2019	Effects of Forest Bathing on Autonomic Nervous System Activity and Mood States in Middle-Aged and Elderly Individuals	Japan	Control test	Passive	Men/40s	100	
93	T. Nakai et al., 2019	Effects of Forest Bathing on Autonomic Nervous System Activity and Mood States in Middle-Aged and Elderly Individuals	Japan	Control test	Passive	Men/40s	100	
94	T. Nakai et al., 2019	Effects of Forest Bathing on Autonomic Nervous System Activity and Mood States in Middle-Aged and Elderly Individuals	Japan	Control test	Passive	Men/40s	100	
95	T. Nakai et al., 2019	Effects of Forest Bathing on Autonomic Nervous System Activity and Mood States in Middle-Aged and Elderly Individuals	Japan	Control test	Passive	Men/40s	100	
96	T. Nakai et al., 2019	Effects of Forest Bathing on Autonomic Nervous System Activity and Mood States in Middle-Aged and Elderly Individuals	Japan	Control test	Passive	Men/40s	100	
97	T. Nakai et al., 2019	Effects of Forest Bathing on Autonomic Nervous System Activity and Mood States in Middle-Aged and Elderly Individuals	Japan	Control test	Passive	Men/40s	100	
98	T. Nakai et al., 2019	Effects of Forest Bathing on Autonomic Nervous System Activity and Mood States in Middle-Aged and Elderly Individuals	Japan	Control test	Passive	Men/40s	100	
99	T. Nakai et al., 2019	Effects of Forest Bathing on Autonomic Nervous System Activity and Mood States in Middle-Aged and Elderly Individuals	Japan	Control test	Passive	Men/40s	100	
100	T. Nakai et al., 2019	Effects of Forest Bathing on Autonomic Nervous System Activity and Mood States in Middle-Aged and Elderly Individuals	Japan	Control test	Passive	Men/40s	100	

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BOSCOS PER LA SALUT

“Bosques para la Salud”, PEHSU Murcia, 2014. www.pehsu.org

“Boscos per la Salut: un nadó, un arbre” és un projecte de Salut Mediambiental amb el lema “Cada infant de la Garrotxa vinculat un arbre”.

- Incorpora el bosc com un [equipament sanitari](#).
- Crea ambients saludables amb [factors de protectors](#) per la infància i adolescència.
- Construeix [equitat](#) en salut.
- Acosta la [comunitat](#) al patrimoni natural i biodiversitat locals.

Introducció. Marc global

1. Creixent **consciència social**. Emmarcat al Programa de Medi Ambient de Nacions Unides: “Solucions Basades en la Natura”.
2. **Dèficit de contacte amb la Natura**.
 - Espais tancats (20h/dia).
 - Exposició a pantalles.
 - Sedentarisme.
 - Confinament
3. Efectes en salut. **El bosc, espai salutogènic**.
 - Evidències limitades però creixents en millora de malalties cròniques, trastorns del comportament, addicions, augment de funció pulmonar i vitamina D, millor rendiment acadèmic escolar...

Introducció. Marc comarcal

4. Natalitat a la Garrotxa. 400 naixements/any.
5. Pressió urbanística i industrial.
6. D'esquenes al Parc Natural.
7. Canvi climàtic i global. *Cydalima perspectalis*



Objetius generals

- Fomentar el **vinde** amb la natura de les parelles embarassades i dels seus futurs fills des del naixement fins l'adolescència.
- Estimular el contacte amb la natura i l'autocura **com una eina en promoció de la salut**.





Objetius específics

- Proposar **activitats** a la natura a nens amb problemes de salut i població sana.
- Incorporar el “Bosc per la salut” a la **cartera de serveis** de l’hospital.
- Vincular cada infant amb el seu **arbre germà**, creant **consciència de respecte** al medi natural.
- Augmentar la captació de CO2 i disminuir l’**efecte hivernacle local**.

Material i Mètode

- **Viabilitat.** Col·laboració entre Agrupació Naturalista i Ecologista de la Garrotxa (ANEGx), Parc Natural de la Zona Volcànica de la Garrotxa, Forestal Catalana i Fundació Hospital d'Olot i Comarcal de la Garrotxa. Projecte SIMBIOSI: Boscos que cuiden els pacients, pacients que cuiden el bosc. Subvenció Departament de Territori i Sostenibilitat de la Generalitat de Catalunya.
- **Lloc.** Bosc dels Tres Turons ("el bosquet de l'hospital"), Olot.
- Des del 25 de novembre 2020 es lliure de manera sistemàtica un plançó a cada nadó.





**Equip Pediàtric Territorial
de la Garrotxa**



Departament de Salut

Full Verd

de l'embaràs i l'al·letament

Cribatge de factors ambientals de risc

DADES SOCIODEMogrÀFIQUES

Entrevistador/a		Home: Full Verd	
Quales d'ha de complir en cas de no disposar d'entrevista:			
☐ Nom i cognoms; ☐ Data de naixement; ☐ NIF; ☐ Contacte telefònic; correu-e;			

OLM	Data Diagnòstic	Data actual
Nom gestant:	Edu:	Idiad. estudi:
Nom parella	Edu:	Idiad. estudi:
Etnia: Africana o Africo-Carib. / Negra o Gitanes / Asiàtica / Indio / Altres:		
País d'origen gestant	País d'origen parella	
Ingressos nets mensuals familiars: <=350€ / 350-1500€ / 1500-3000€ / >3000€		

ANTECEDENTS OBSTÈTRICS

Embaràss prèvis

#	Any	Via d'assoliment (PE/assolida)	PM	VS	Sexe	Antecedents LM (completa/total)	Antecedents ginecol.

Quan es va quedar embarassada, està/a buscar l'embaràs o si no,

la parella o si no. En cas afirmatiu, quant de temps han estat juntes

Has utilitzat alguna tècnica de contracepció anticonceptiva?

Es va afegir, quina? (FIV) (ICSI) (Inseminació artificial) (Estimulació ovàrica, Data inseminació/transfereència/extracció: / /)

Prèviament o al llarg del conceptus hominari o no.

Estació Neonatal

- Paquet informatiu i diploma
- Lliurament del plançó.
- En tindran a casa fins el dia de la plantació (1^a abril 2021, 2^a octubre 2021).



Consells per cuidar un petit plançó

Comencem:

Triu un test i preferentment de fang (l'aigua s'evapora més lentament), però si és de plàstic també serveix. L'amplada del test ha de ser més o menys igual que l'alçada del plançó.

Utilitza un substrat nou i que sigui drenat per mantenir la humitat.

Manté la terra ben airejada i oxigenada. Remou-la amb un cino patra sense fer malbé les arrels.

Les arrels sempre han d'estar cobertes de substrat.

Per regar:

Rega l'arbre amb abundància fins que dreni per sota del test.

Mulla la terra però no la planta.

Pesa un plat amb aigua sota el test.

Regal al capvespre o al matí.

S'hauria de regar quan la terra s'assoca (mínim una vegada cada setmana a festiu i cada 15 dies a l'hivern).

I per acabar:

Treu-li les males herbes per evitar que s'emportin nutrients i aigua.

Buixa-li un llor on li roqui el sol però també una mica d'ombra.



Estació Postnatal

- Visites familiar (cures, passeig pel bosc).
- Jornades de sensibilització ambiental (ANEGx).
- Manteniment per voluntaris i pacients.
- Activitats escolars ("Visitem l'hospital" 5è primària).
- Itineraris saludables.
- Escola d'Art.
- FP (jardineria).
- Prescripció de natura. RECEPTA VERDA.



























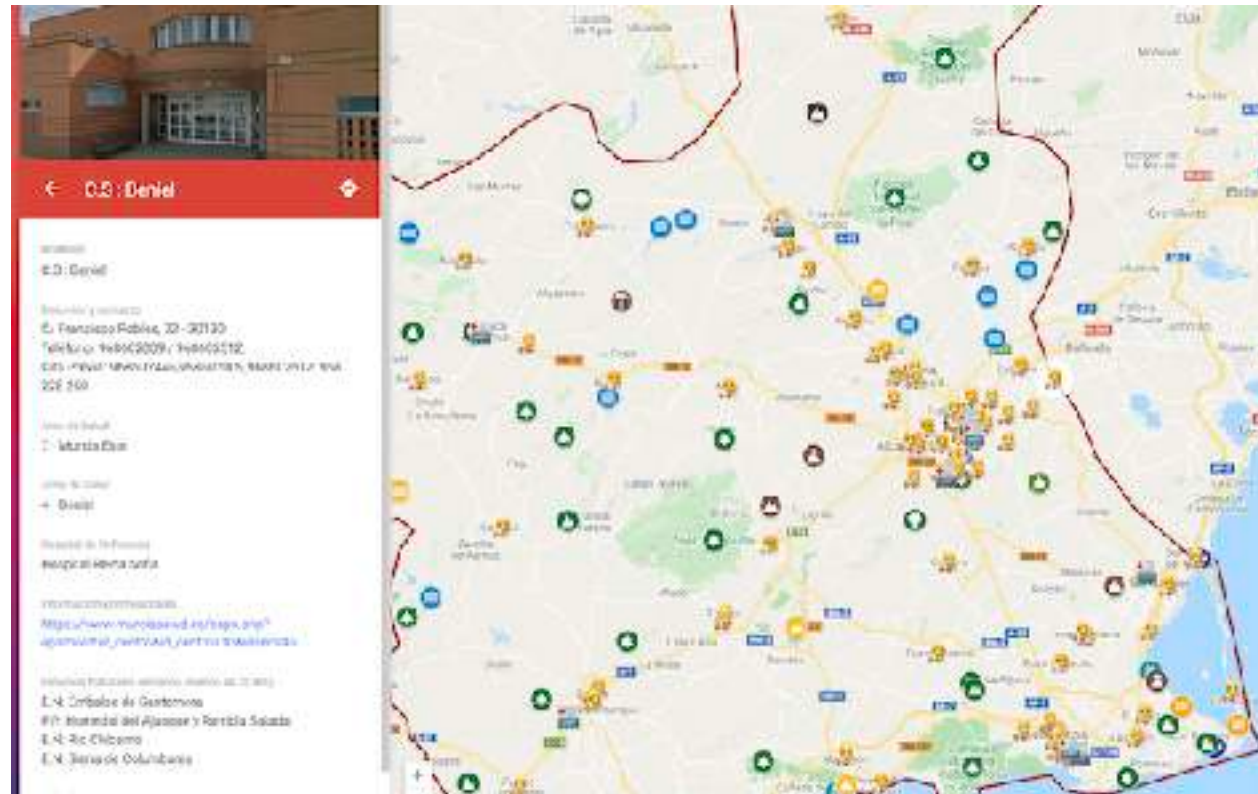
Receta Naturaleza

<https://www.ecologiaysalud.org/>

- PEHSU (Múrcia), 2021-2022. Experiència pilot.
- Prescripció de salut des dels CAPs i hospitals de la Regió de Múrcia.
- Infants i a adolescents de 7 a 17 anys.
- Especialment adreçat a infants amb patologies cròniques i exposicions prenatales de risc.
- "Educaventura".
- Recerca

CONSULTAS EXTERNAS DE PEDIATRÍA		RESTAURANDO TU SALUD Y LA DEL PLANETA		AREA DE SALUD 1 Servicio Murciano de Salud	
RECONECTAR CON LA NATURALEZA	PRESCRIPCIÓN			Nombre del participante, teléfono de contacto y email.	
	DPS ☐			Duración 2 horas	
	EDUCAVENTURAS DE SALUD MEDIOAMBIENTAL (de 7 a 17 años) "Creando ambientes y estilos de vida más saludables para la infancia y la adolescencia." Jardín Botánico "ArboretUM-El Valle"			Ver las instrucciones anexas	
				Nº Orden Dispensación	
			Fecha realización 02-04/06/2021		
 Receta Naturaleza			MÉDICO/ENFERMERO/FARMACEÚTICO		
			Fecha prescripción: 02/06/2021 – 04/06/2021		
			Contenido de la actividad: Taller de Salud Medioambiental en la Naturaleza		
			Realizado por Educalíderes de PEHSU y FUNDOWN en ArboretUM		
			Información adicional Podrán ir acompañados de 1 o 2 adultos a la educaventura. Se realiza al aire libre y con todas las medidas de control y prevención de SarSCoV2. MÁS INFO: 968369031		
					

- Catàleg d'espais naturals i rutes de senderisme més properes al seu CAP.
- Test de connexió amb la Natura.



Instalaciones de los propios centros escolares

- 1 Sustituir las zonas de aparcamiento** que se encuentren dentro del recinto escolar por áreas estanciales y de juego.
- 2 Reservar en todos los recintos educativos, o en sus alrededores, un espacio seguro para el aparcamiento de bicicletas, patines y patinetes** para incentivar la movilidad activa al centro.
- 3 Revegetar los patios escolares** con arbolado y plantas que proporcionen sombra, frescor y color a estos espacios, mejoren la calidad del aire y amortigüen el ruido.

Alrededores y accesos a los centros escolares

- 4 Limitar el aparcamiento y el tráfico** en las calles del entorno y, muy especialmente, en las inmediaciones de las entradas a los centros.
- 5 Vigilar y hacer cumplir estrictamente la normativa vial** a la entrada y salida de estudiantes para que el entorno escolar sea un espacio seguro y de convivencia.
- 6 Priorizar la movilidad peatonal y ciclista** en el viario del entorno escolar, creando corredores de acceso libres de coches, fomentando la presencia de vegetación y agua, y promoviendo zonas estanciales, de encuentro y de juego en el espacio público.

Planificación urbanística

- 7 Integrar en la redacción del POUM (Plan de Ordenación Urbanística Municipal)** medidas para fomentar entornos escolares seguros y saludables.
- 8 Incorporar en los Planes de Movilidad Urbana Sostenible (PMUS)** medidas específicas de limitación y pacificación del tráfico en los entornos escolares.
- 9 Promover un cambio generalizado hacia el modelo de “Ciudad 30”** para reducir la velocidad del tráfico en todo el viario urbano.

Zonificación escolar

- 10 Priorizar la proximidad al centro escolar como criterio básico del área escolar**, en beneficio de la infancia y de toda la comunidad, revirtiendo la implantación de “zona única de escolarización” que tan negativamente influye en el incremento de desplazamientos motorizados diarios.

Entidades promotoras

Una propuesta del Seminario de Movilidad e Infancia, con el apoyo de:



Instituto de Salud Global de Barcelona (ISGlobal)
www.isglobal.org



ConBici - Coordinadora en defensa de la Bici
conbici.org



CEAPA - Confederación Española de Asociaciones de Padres y Madres de Alumnado
www.ceapa.es



A Pie, Asociación de Viandantes
www.asociacionapie.org



Grupo “La Ciudad de los Niños”, Acción Educativa
accioneducativa-mrp.org



Gea21-Grupo de Estudios y Alternativas
www.gea21.com

Entidades que apoyan

Ciudades que Caminan ciudadesquecaminan.org
Concello de Pontevedra www.pontevedra.gal
Ecologistas en Acción www.ecologistasenaccion.org
Foro Andando peatones-andando.blogspot.com
Greenpeace España es.greenpeace.org
Teachers For Future Spain teachersforfuturespain.org
Red de Ciudades por la Bicicleta ciudadesporlabicicleta.org
Ciudades Amigas de la Infancia de UNICEF España ciudadesamigas.org
Federación Iberoamericana de Urbanistas (FIU) www.fiurb.org
PostCarCity postcarcity.org

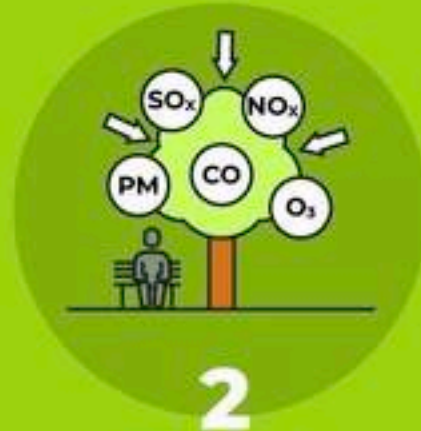
Apoya tú también la propuesta:
entornos Escolares.es



Benefits of **urban trees**



1
Cool the air



2
Filter urban
pollutants



3
Increase
property values



4
Increase urban
biodiversity



5
Improve physical
and mental health



Food and Agriculture
Organization of the
United Nations

La regla del 3-30-300

3



trees from every home

30



% tree canopy cover in every
neighbourhood

300



meters from the nearest
park or green space

[Cecil Konijnendijk van den Bosch](#), 2021



Posicionament sobre salut i medi ambient de la infància i adolescència en temps de COVID-19

1. Peatonalitzar les rodalies escolars, de manera provisional amb la restricció del trànsit motoritzat a les entrades i sortides, i posteriorment de manera permanent.
2. Creació de camins escolars per afavorir l'arribada al centre educatiu de manera autònoma i segura.
3. Substitució dels aparcaments per a cotxes dels carrers contigus als centres educatius per aparcaments per a bicicletes i zones d'espera amb arbrat.
4. Realització de l'activitat lectiva i no lectiva a l'aire lliure sempre que sigui possible.
5. Assegurar una bona ventilació dels espais tancats, amb obertura de finestres permanent o de manera periòdica.
6. Posada en marxa d'iniciatives com la d'"Entorns sense fum" o "Classe sense fum" per afavorir l'eliminació de l'exposició al fum ambiental del tabac als centres educatius i prevenir el tabaquisme abans de l'adolescència, així com treballar en activitats preventives a l'àmbit del consum d'alcohol i altres drogues.
7. Prioritzar l'escola presencial a la telemàtica, especialment a l'educació infantil i primària.
8. Reverdir els patis amb arbres i vegetació que aportí ombra els dies de sol i protegeixi del vent i de la pluja.
9. Traslladar l'aula a entorns naturals propers al centre educatiu almenys un cop al mes.
10. Sensoritzar les aules: apropar la monitorització (qualitat de l'aire, trànsit, CO₂, etc.) als alumnes amb finalitat educativa i de millora de la salut.
11. Plans de salut mediambiental escolar per a cada centre, amb un diagnòstic escolar amb participació de tota la comunitat educativa.
12. Incentivar la participació ciutadana per impulsar accions de salut pública des de totes les polítiques i oferir formació i assessorament en aquest àmbit a les associacions, entitats educatives que ho sol·licitin



Salut i natura

- 1/dia: min. a parc urbà.
- 1/setmana: h. a espai natural.
- 1/mes: d. a parc natural.

Conclusions

- El contacte amb la natura com a eina per a la promoció de la salut.
- Bosc per la salut: equipament sanitari, espai salutogènic, vinculació amb el medi natural des del naixement.
- Necessitem renaturalitzar les ciutats.
- Prescripció de natura.



Gràcies!

Ferran Campillo i López

Anton Foguet i Vidal

Anna Gelis Pujolar

Lourdes Dorca Vert

Unitat de Salut Mediambiental Pediàtrica (PEHSU)

Equip Pediàtric Territorial de la Garrotxa

Fundació Hospital d'Olot i Comarcal de la Garrotxa

pehsu@hospiolot.cat

www.pehsu.cat

