

The wood for human health

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Abstract

Wood is an ancestral material used for millennia for indoor and outdoor habitat, and for transportation, storage, conservation, food improvement. Today, more than ever, wood is studied in many ways. The focus of this conference is wood and human health. Indeed, this noble material combines several natural qualities generating beneficial effects on human health. First, recent studies call it “healthy material” when it is used as soothing material. Raw wood has this property to act on the well-being of people. Indeed, it has been established positive psychological effects on so-called “sensitive” people such as babies, patients with important treatments, elderly people. But physiological effects have also been directly related to the presence of wood such as heart rate, sleep. Second point: its effects on the protection of human health with natural antimicrobial qualities in the case of nosocomial diseases but also against foodborne pathogens. In the hospital setting, wood is studied for its antimicrobial properties. Recent work has shown that oak has bactericidal effects against 8 isolates resistant to antibiotics. This material could be used for sanitary purposes in places for sensitive people. In the food industry, wood is allowed in direct contact with food by European regulations. Recent work has been carried out and demonstrated the antimicrobial effects of raw wood on high-risk bacteria and molds, also a chemical inertia of this material towards the food on contact, but also important organoleptic properties. And the third point, and not least, its “renewable and sustainable” character acting positively on the environment of man and therefore his health.

Biography

I am a Doctor of Biology and founder of the company YouR Research - Bio Scientific. For more than 15 years, I have been leading projects in microbiology serving animal and human health by working in various academic and private laboratories alongside private partners as well as French and European health authorities. Today, my expertise leads me to consultancy positions for YouR Research and “Wood packaging & Food Contact” expert for the European Commission.

Publications

Experimental Parameters Influence the Observed Antimicrobial Response of Oak Wood (*Quercus petraea*).

Comparative study of microbiological transfer from four materials used in direct contact with apples.

Testing the Antimicrobial Characteristics of Wood Materials: A Review of Methods.

Oak wood has antimicrobial activity against *Acinetobacter baumannii* isolates of human and animal origin.

An investigation of hygienic risk of *Staphylococcus aureus* on wood surfaces via Spectral Confocal Laser Scanning Microscopy.



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