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**Abstracts**

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### FULL TEXTS

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536

### CENTRAL AUDITORY PROCESSING EVALUATION – NORMATIVE DATA FOR PORTUGUESE PEDIATRIC POPULATION

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**Introduction:** The need for central auditory processing assessment tools motivated the authors to develop a battery of tests for this purpose. This battery has 6 tests: SSW, Filtered Speech, Speech in Noise, Gap in Noise, Duration Pattern and Frequency Pattern. To be able to use the battery for the diagnosis of central auditory processing disorders in the pediatric population, it is important to evaluate children with normal development.

**Objective:** To evaluate children with normal development with the central auditory processing test battery.

**Methods:** An audiometer and a computer with software specially developed for the testing was used in these evaluations, that were conducted in a soundproof booth. 216 children between 5 and 11 years were evaluated in 13 different locations in Portugal. The participants were previously evaluated with tonal and speech audiometry, impedance and otoacoustic emissions. The tests were presented at 50 dB SL; half of the participants started the evaluation with the right ear and the other half with the left ear, in order to eliminate the learning effect that could affect the results. Statistical analysis was conducted using SPSS 17.

**Results:** The results obtained in the evaluations of children with normal development allow the definition of the expected performance for each age.

**Conclusions:** The tests are adequate for pediatric evaluation. The results of the children with normal development are an important contribution for the evaluation of central auditory processing disorders in Portugal.

**Descriptors:** central auditory processing; assessment; audiology.

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537

### SOAP FORMULATION WITH COFFEE GROUNDS. A NEW CONCEPT OF FOOD BY-PRODUCTS VALORIZATION AND HEALTH PROMOTION

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**Introduction:** Coffee is one of the most consumed drinks in the world, and for this reason, tons of coffee grounds are generated every day. Coffee possesses several molecules with pharmacological action; however the most important of all is, indisputably, caffeine a xantine alkaloid. Besides being a molecule with recognized CNS stimulant effects, caffeine is also used in dermatological formulations for a cosmetic purpose as an active compound in anti-cellulite products because it, supposedly, prevents the excessive accumulation of fats in cells. The content of caffeine varies widely depending on the varieties of coffee bean. During the preparation of the coffee drink, not all the caffeine is extracted from the grain so that grounds still contain significant amounts of the compound. This makes the coffee grounds by-product an interesting source of caffeine for various applications.

**Objective:** The main objective of this work was to quantify caffeine contents in different coffee grounds varieties, in order to develop a soap formulation with intent to prevent or reduce the development of cellulite.

**Methods:** Hot aqueous extracts were prepared with fresh coffee grounds. Caffeine was quantified by HPLC using benzoic acid as internal standard.

**Results:** Different caffeine contents were integrated in soap formulations considering coffee grounds varieties (C. arabica; C. robusta). Furthermore, were incorporated solid coffee grounds to develop natural exfoliants with positive benefits to skin.

**Conclusions:** It was possible to produce soap from coffee grounds. The soaps exhibited levels of caffeine sufficient to have anti-cellulite activity.

**Descriptors:** Coffee grounds; Caffeine; By-products valorization; HPLC; Soap formulation.

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