



UNIVERSITÀ  
DEGLI STUDI DI TRIESTE

Rettorato e Direzione Generale  
Ufficio di Staff Industrial Liaison Office

**ENGINEERING & ENVIRONMENT**

**SCHEDA BREVETTO NUMERO 22**

## **TITOLO**

Sistema e metodo per prevenire l'ipoglicemia in un paziente diabetico di tipo 1 durante l'attività fisica

System and method for preventing hypoglycaemia in a human type 1 diabetic patient during physical activity

## **DATA DI PRIORITA'**

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## **NUMERO**

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## **INVENTORI**

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## **TITOLARI**

Università degli Studi di Trieste	40%
Università di Udine	60%

## **DESCRIZIONE E SETTORI DI APPLICAZIONE**

A method for estimating the amount of carbohydrates needed by a DP-1 during a specific session of physical activity, comprises the following steps: defining of working constants and standard parameters; introducing of patient and therapy specific parameters, calculating of patient specific reference curves for a percentage carbohydrates consumption (% CHO); scheduling a training session; estimating the amount of carbohydrates (CHO) to be eaten before said physical activity; updating in real time the residual carbohydrates still available during said physical activity; and estimating the amount of carbohydrates to be restored after said physical activity.



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## **VANTAGGI**

Accordingly, a first object of the present invention is to provide a method for a reliable estimate, before an exercise session, of the carbohydrate need to prevent hypoglycaemia during and/or after a specific session of physical activity, i.e. exercises in physical training in DP-1.

Another object of the present invention is to provide a system suitable to implement the above mentioned method for an estimate of the carbohydrate need to prevent hypoglycaemia during and/or after a specific session of physical activity in DP-1, the system incorporating an apparatus which is easy to manage by the same diabetic subject.

A further object of the present invention is to provide a software for the above mentioned system and apparatus which specifically estimates the amount of carbohydrates a DP-1 needs before/during exercise to prevent hypoglycaemia.

## **STATUS**

Concesso in Europa

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