Package 'HealthCal'

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Type Package

Title Health Calculator

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Description Health Calculator helps to find different parameters like basal metabolic rate, body mass index etc. related to fitness and health of a person.

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Encoding UTF-8

Suggests knitr, rmarkdown

VignetteBuilder knitr

NeedsCompilation no

Repository CRAN

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Contents

BFPF *Body Fat Percentage (BFP) for female*

Description

The BFPF function helps to calculate Body Fat Percentage (BFP) for female.

Usage

```
BFPF(inputdata)
```

Arguments

inputdata	Input data that includes height, weight and age of a female

Details

The body fat percentage (BFP) of a human or other living being is the total mass of fat divided by total body mass, multiplied by 100; body fat includes essential body fat and storage body fat. Essential body fat is necessary to maintain life and reproductive functions. The equation for BFP calculation was developed at the Naval Health Research Center (NHRC), in San Diego, California. The function was created using this equation. The body fat percentage is a measure of fitness level, since it is the only body measurement which directly calculates a person's relative body composition without regard to height or weight.The percentage of essential body fat for women is greater than that for men, due to the demands of childbearing and other hormonal functions.

Value

It returns body fat percentage (BFP) for female with present catagory

Author(s)

Pankaj Das

References

Deurenberg, P., Weststrate, J.A., Seidell, J.C. (1991). Body mass index as a measure of body fatness: age- and sex-specific prediction formulas. The British Journal of Nutrition, 65 (2): 105-114. (doi:10.1079/BJN19910073).

See Also

BFPF, HealthCal

Examples

```
dataset47=c(175,90,25)
BFPF(dataset47)
```

BFPM *Body Fat Percentage (BFP) for Male*

Description

The BFPM function helps to calculate Body Fat Percentage (BFP) for Male.

Usage

```
BFPM(inputdata)
```

Arguments

inputdata	Input data that includes height, weight and age of a male

Details

BThe body fat percentage (BFP) of a human or other living being is the total mass of fat divided by total body mass, multiplied by 100; body fat includes essential body fat and storage body fat. Essential body fat is necessary to maintain life and reproductive functions. The equation for BFP calculation was developed at the Naval Health Research Center (NHRC), in San Diego, California. The function was created using this equation. The body fat percentage is a measure of fitness level, since it is the only body measurement which directly calculates a person's relative body composition without regard to height or weight.

Value

It returns body fat percentage (BFP) for Male with present catagory

Author(s)

Pankaj Das

References

Deurenberg, P., Weststrate, J.A., Seidell, J.C. (1991). Body mass index as a measure of body fatness: age- and sex-specific prediction formulas. The British Journal of Nutrition, 65 (2): 105-114. (doi:10.1079/BJN19910073).

See Also

BFPM, HealthCal

Examples

```
dataset46=c(175,90,25)
BFPM(dataset46)
```

BMI *The Body Mass Index (BMI)*

Description

The BMI function helps to calculate BMI value and corresponding weight status while taking age into consideration. It help decide whether people are overweight or underweight for over 100 years.

Usage

```
BMI(inputdata)
```

Arguments

inputdata	Input data that includes height and weight of a person

Details

The body mass index (BMI) is a measurement based on a person's mass (weight) and height. The BMI is calculated by dividing the body weight by the square of the height, and it is expressed in kilogrammes per square metre (kg/m2) since weight is measured in kilogrammes and height is measured in metres. The function was created using formula given by Keys et al. (1972).

Value

It returns body mass index (BMI) with present status

Author(s)

Pankaj Das

References

Keys, A., Fidanza, F., Karvonen, M.J., Kimura, N. and Taylor, H.L. (1972). Indices of relative weight and obesity. Journal of Chronic Diseases. 25(6): 329–343. (doi:10.1016/0021-9681(72)90027-6).

See Also

BMI, HealthCal

Examples

```
dataset44=c(175,90)
BMI(dataset44)
```

BMR *The Body Mass Index (BMR)*

Description

The BMR function helps to calculate rate of energy expenditure per unit time of a person (Male/Female)

Usage

```
BMR(inputdata)
```

Arguments

inputdata	Input data that includes height, weight and age of a person (male/female)

Details

Basal metabolic rate (BMR) is the rate of energy expenditure per unit time by endothermic animals at rest. The basal metabolic rate (BMR) of a person can be calculated using the Harris-Benedict equation, also known as the Harris-Benedict principle (1918). The function was created using this Harris-Benedict principle.The amount that should be consumed each day in kilocalories to maintain one's present weight can be calculated by multiplying the predicted BMR value by a factor that reflects the person's level of activity.

Value

It returns basal metabolic rate (BMR) with present status for both male and female

Author(s)

Pankaj Das

References

Harris, J.A. and Benedict, F.G. (1918). A Biometric Study of Human Basal Metabolism. Proceedings of the National Academy of Sciences of the United States of America. 4 (12): 370–3. (doi:10.1073/pnas.4.12.370).

See Also

BMR, HealthCal

Examples

```
dataset45=c(175,90,25)
BMR(dataset45)
```

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