

Glomerular Filtration Rate Calculator App Review

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Keywords Glomerular filtration rate calculator · GFR calculator · GFR · Glomerular filtration rate app

App Specs

App icon URL: https://itunes.apple.com/us/app/gfr-calculator-mdrd-and-ckd/id523479289?mt=8

App name: Glomerular Filtration Rate Calculator

App developer: RADIOLOGiQ, LLC

App developer website: http://www.radiologiq.com/gfr/

App price: Free

Apple App Store URL: https://itunes.apple.com/us/app/gfr-calculator-mdrd-and-ckd/id523479289?mt=8

Google Play Store URL: N/A Category: Clinical, Medical

Tags: Free, Calculator, GFR, Glomerular Filtration Rate,

iOS only

Works offline: Yes FDA approval: N/A Promotion code: N/A

Quick Review

(1 star: lowest/5 stars: highest) Overall rating (1–5): 4.5 Content (1–5): 4 Usability (1–5): 5

Pros Delivers a quick and easy glomerular filtration rate calculation based on either the Modification of Diet in Renal

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University of Florida College of Pharmacy, Gainesville, FL 32611, USA Disease Study Formula (MDRD) or the Chronic Kidney Disease Epidemiology Group Formula (CKD). This tool provides convenience in establishing useful diagnostic information.

Cons The calculated glomerular filtration rate (GFR) changes color depending on the value; however, there is no explanation as to what the colors indicate. The accuracy of data cannot be interpreted without defining what the colors mean. The lack of color indication also minimizes the applicability to practice since it excludes useful information such as stages of patients with CKD and/or dose-adjustments for renally cleared medications.

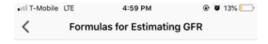
At a Glance The Glomerular Filtration Rate Calculator app offers an accurate and simple method to calculate GFR. It is a great tool for students, residents, or new practitioners to keep up with work flow demands. It is also a beneficial tool for increasing the efficiency for experienced practitioners.

Full Review

Intro Calculating the glomerular filtration rate is common and crucial for health professionals across many different fields to measure kidney function. The Glomerular Filtration Rate Calculator app provides a fast calculation based on patient's age, gender, race, and creatinine value.

Purpose/Features/Content The purpose of this app is simply to calculate the glomerular filtration rate. The user-friendly interface features a section to input the patient's pertinent information for the calculation. As you change the information, the GFR is automatically calculated and clearly displayed in a colored circle. There are options to use the MDRD formula or CKD formula. If a healthcare professional wants to see the journal article where the recommendations are retrieved from,





MDRD Formula

Glomerular filtration rate (GFR) is an indicator of renal function and may be estimated using a formula advocated by the Modification of Diet in Renal Disease (MDRD) Group. Some believe this formula may underestimate GFR in heavy patients and healthy patients, while overestimating GFR in underweight patients.

LINK TO MANUSCRIPT

CKD Formula

Glomerular filtration rate (GFR) may also be estimated using a formula advocated by the Chronic Kidney Disease (CKD) Epidemiology Collaboration Group. Some believe that this may be more accurate than the MDRD formula, particularly in patients with higher GFRs.

LINK TO MANUSCRIPT

Fig. 1 Formulas for estimating GFR and links to respective formulas



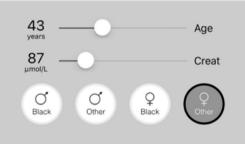


Fig. 2 Sample glomerular filtration rate calculation based on CKD formula in SI units





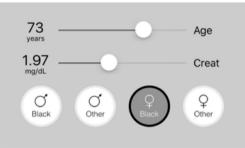


Fig. 3 Sample glomerular filtration rate calculation based on CKD formula in US units

there is a button on the upper right corner that opens the article in a Safari web browser page. The app offers the calculation in US and SI units (Figs. 1, 2, 3, 4, and 5).

Usability This app's design is exceptional with the organized layout that provides a fast GFR calculation. The simplicity of the app with the straightforward arrangement and large lettering allows the app to be used by all healthcare professionals.

Good The app does exactly what it is intended to do by calculating the glomerular filtration rate in a very fast, user-friendly way.

Room for Improvement The app does not provide an interpretation of the calculated GFR if the user wanted that information. The GFR calculation appears in a colored circle, which could bring confusion since it displays different colors but does not provide meaning to the colors or link to kidney diagnostic stages. Options like adding an explanation to the calculation or including a link to GFR guidelines could be beneficial to the user. Providing information about the calculated GFR value could enhance the use of this application.

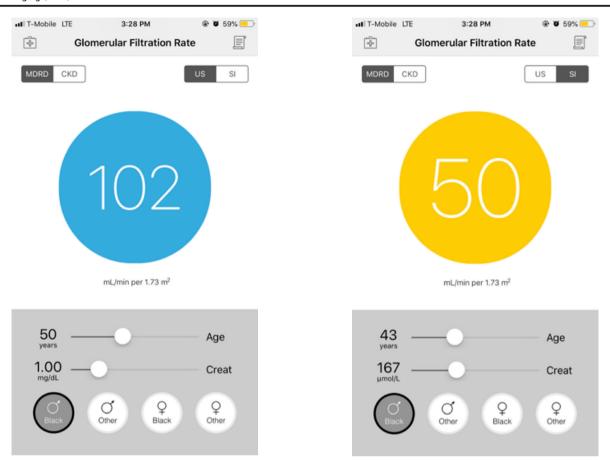


Fig. 4 Sample glomerular filtration rate calculation based on MDRD formula in US units

Fig. 5 Sample glomerular filtration rate calculation based on MDRD formula in SI units

