

Kansas City Cardiomyopathy Questionnaire (KCCQ-12) Scoring Information

Five scores are generated from the KCCQ-12, representing four scales and one summary score.

Physical Function Score	(KCCQ12-PL)
Symptom Frequency Score	(KCCQ12-SF)
Quality of Life Score	(KCCQ12-QL)
Social Limitation Score	(KCCQ12-SL)
Summary Score	(KCCQ12)

All scores are scaled 0-100, where 0 denotes the lowest reportable health status and 100 the highest.

Physical Limitation Score

The Physical Limitation scale corresponds to Questions 1a, 1b and 1c. Responses are coded as follows:

<i>Questions 1a, 1b and 1c Response</i>	<i>Coded Value</i>	<i>Rescaled Value for Scoring</i>
Extremely limited	1	0
Quite a bit limited	2	25
Moderately limited	3	50
Slightly limited	4	75
Not at all limited	5	100
Limited for other reasons or did not do the activity	6	Missing

For all three questions, a response value of 6 should be recoded as missing for the purpose of scoring. At least two questions must have non-missing responses in order to calculate a score. The score is calculated by taking the average of the available responses and rescaling to 0-100, as follows:

If at least two of Questions 1a, 1b and 1c have non-missing responses, then
$$\text{KCCQ12-PL} = 100 \times [(\text{average of non-missing responses}) - 1] \div 4$$

Else
$$\text{KCCQ12-PL} = \text{Missing}$$

Symptom Frequency Score

The Symptom Frequency scale corresponds to Questions 2, 3, 4 and 5. Responses are coded as follows:

<i>Question 2 Response</i>	<i>Coded Value</i>	<i>Rescaled Value for Scoring</i>
Every morning	1	0
3 or more times per week but not every day	2	25
1-2 times per week	3	50
Less than once a week	4	75
Never over the past 2 weeks	5	100

<i>Questions 3 and 4 Response</i>	<i>Coded Value</i>	<i>Rescaled Value for Scoring</i>
All of the time	1	0
Several times per day	2	16.667
At least once a day	3	33.333
3 or more times per week but not every day	4	50
1-2 times per week	5	66.667
Less than once a week	6	83.333
Never over the past 2 weeks	7	100

<i>Question 5 Response</i>	<i>Coded Value</i>	<i>Rescaled Value for Scoring</i>
Every night	1	0
3 or more times per week but not every day	2	25
1-2 times per week	3	50
Less than once a week	4	75
Never over the past 2 weeks	5	100

At least two questions must have non-missing responses in order to calculate a score. The score is calculated by first rescaling each available response to 0-100, then taking the average of the rescaled responses, as follows:

If at least two of Questions 2, 3, 4 and 5 have non-missing responses, then

$$Q2 \text{ rescaled} = 100 \times (Q2 \text{ response} - 1) \div 4$$

$$Q3 \text{ rescaled} = 100 \times (Q3 \text{ response} - 1) \div 6$$

$$Q4 \text{ rescaled} = 100 \times (Q4 \text{ response} - 1) \div 6$$

$$Q5 \text{ rescaled} = 100 \times (Q5 \text{ response} - 1) \div 4$$

$$KCCQ12\text{-SF} = \text{Average of non-missing rescaled responses}$$

Else

$$KCCQ12\text{-SF} = \text{Missing}$$

Quality of Life Score

The Quality of Life scale corresponds to Questions 6 and 7. Responses are coded as follows:

<i>Question 6 Response</i>	<i>Coded Value</i>	<i>Rescaled Value for Scoring</i>
It has extremely limited my enjoyment of life	1	0
It has limited my enjoyment of life quite a bit	2	25
It has moderately limited my enjoyment of life	3	50
It has slightly limited my enjoyment of life	4	75
It has not limited my enjoyment of life at all	5	100

<i>Question 7 Response</i>	<i>Coded Value</i>	<i>Rescaled Value for Scoring</i>
Not at all satisfied	1	0
Mostly dissatisfied	2	25
Somewhat satisfied	3	50

Mostly satisfied	4	75
Completely satisfied	5	100

At least one question must have a non-missing response in order to calculate a score. The score is calculated by taking the average of the available responses and rescaling to 0-100, as follows:

If at least one of Questions 6 and 7 has a non-missing response, then

$$\text{KCCQ12-QL} = 100 \times [(\text{average of non-missing responses}) - 1] \div 4$$

 Else

$$\text{KCCQ12-QL} = \text{Missing}$$

Social Limitation Score

The Social Limitation scale corresponds to Questions 8a, 8b and 8c. Responses are coded as follows:

<i>Questions 8a, 8b and 8c Response</i>	<i>Coded Value</i>	<i>Rescaled Value for Scoring</i>
Severely limited	1	0
Limited quite a bit	2	25
Moderately limited	3	50
Slightly limited	4	75
Did not limit at all	5	100
Does not apply or did not do for other reasons	6	Missing

For all three questions, a response value of 6 should be recoded as missing for the purpose of scoring. At least two questions must have non-missing responses in order to calculate a score. The score is calculated by taking the average of the available responses and rescaling to 0-100, as follows:

If at least two of Questions 8a, 8b and 8c have non-missing responses, then

$$\text{KCCQ12-SL} = 100 \times [(\text{average of non-missing responses}) - 1] \div 4$$

 Else

$$\text{KCCQ12-SL} = \text{Missing}$$

Summary Score

The KCCQ-12 Summary Score represents an integration of the Physical Limitation, Symptom Frequency, Quality of Life and Social Limitation scales. At least one of the four scale scores must be present in order to calculate the summary score. The score is calculated as the average of the available scale scores, as follows:

If at least one of KCCQ12-PL, KCCQ12-SF, KCCQ12-QL and KCCQ12-SL is not missing, then

$$\text{KCCQ12} = \text{Average of non-missing scale scores}$$

 Else

$$\text{KCCQ12} = \text{Missing}$$