

Vectra[®] by  labcorp

A Guide to Your Vectra Molecular Result

Vectra is an advanced blood test that measures inflammation caused by your rheumatoid arthritis (RA), predicts your risk of developing permanent joint damage, and helps monitor disease activity and how your treatment plan is working.



Now with Vectra Cardiovascular (CV) Risk, a personalized risk assessment that predicts your risk for a CV event in the next 3 years*.

*Vectra Cardiovascular Risk is for patients age 40 and older with no prior history of heart attack or stroke. It is not intended for patients using IL-6R treatment in the last 90 days, patients with a diagnosis of cancer (excluding non-melanoma skin cancer) or patients who have been hospitalized within the past 14 days.

View Your Vectra[®] Score* at Labcorp Patient[™]



- 1 Go to patient.labcorp.com
- 2 Click 'Create an Account'
- 3 Fill out patient information form and **verify** email
- 4 For **help** or **questions** regarding account creation, call Vectra Customer Service: **1-877-743-8639**



Your test results will be sent to your provider's office. Use your Vectra test results to discuss your treatment plan and goal with your provider.

It's easy to manage your health with Labcorp Patient[™]



Make an appointment



View test results



Pay your bills

Learn About Clinical Trials
Purchase Your Own Lab Test
Help Center

Labcorp | Patient[™]
Dashboard Appointments Orders Results Billing
Ott Lite ▼

[← Back to Results](#)

Results

Results are delivered to your Labcorp Patient[™] account at the same time they are reported to your healthcare provider (unless state or federal laws restrict timing of delivery).

LCA - eLabCorp Account #2 - MB

Vectra(R)

Service Date
04/01/2022

Report Date
04/06/2022

[Download Results PDF](#)

Test Name	Current Result and Flag	Reference Interval and Units
Vectra Score 🗨	79	
Risk of Radiographic Progress 🗨	25	%
Vectra(R) Level		
<p>High Vectra Disease Activity Levels: High: 45 to 100 Moderate: 30 to 44 Low: 1 to 29</p>		

*Labcorp Patient Portal allows you to download your Vectra result and provides valuable information about your Vectra Score. For more detailed information about the Vectra Score, visit [Labcorp.com/Rpatients](https://labcorp.com/Rpatients).

Understand Your Result: The Vectra Score

Your **Vectra Molecular Result** includes four parts

Vectra Score	Risk of RP	Change in Score	Vectra Score Interpretation
58 HIGH (45-100)	11% 1-Year Risk of Radiographic Progression	Meaningful Change Not Calculated <small>Multiple Vectra Scores Required for Meaningful Change Calculation</small>	■ High Vectra Score: 58 Patient has a High Vectra Score and is at increased risk for radiographic progression. Consider adjusting treatment regimen to reduce inflammation, and retesting at the next clinical visit.

Vectra Score:

This is your personalized Vectra Score that measures **12 proteins found in the blood called biomarkers** that have been associated with RA. The score is personalized to you by factoring in your age, gender and body fat (measured by leptin), all of which can affect levels of inflammation.¹

Risk of RP:

This is your risk of rapid radiographic progression (RP) over the next 1 year.

Change in Score:

If this is your first Vectra test, there will be no change in score measure to provide; your report will state "Meaningful Change Not Calculated." If you have had previous Vectra testing, the Change in Score section will indicate if there has been a meaningful change of 8 units or more, or no change, in your disease activity.

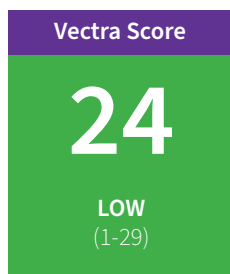
Vectra Score Interpretation:

Provides a more detailed explanation of your Vectra Score, your disease activity category, risk of radiographic progression and treatment plan suggestions.

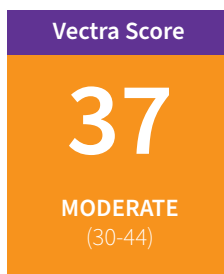
1

VECTRA SCORE

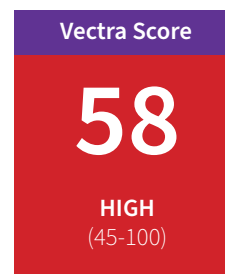
Your personalized Vectra Score is reported as a number on a scale from 1 to 100. Your Vectra Score will be color coded, based on the level of disease activity and inflammation, and will fall into **low (1-29)**, **moderate (30-44)** or **high (45-100)**.



A Vectra Score in the low category means that your RA disease activity and inflammation are low. Generally, this means your RA is being well controlled by your current treatment plan.



A Vectra Score in the moderate category means that your RA disease activity and inflammation are higher than the ideal (the low disease activity category), but this is not as concerning as a score in the high disease activity category.



A Vectra Score in the high category means that your RA disease activity and inflammation are high and could suggest that your RA may not be responding to your current treatment. Vectra Scores in the high disease activity category are known to be associated with a higher risk of permanent joint damage.^{2,3}

Understand Your Result: Radiographic Progression (RP)

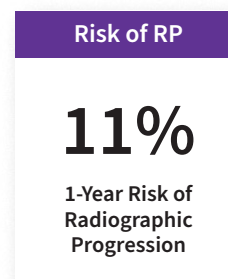
2

RADIOGRAPHIC PROGRESSION

Visible effects of joint damage and deterioration that may be observed on x-ray and cause permanent damage



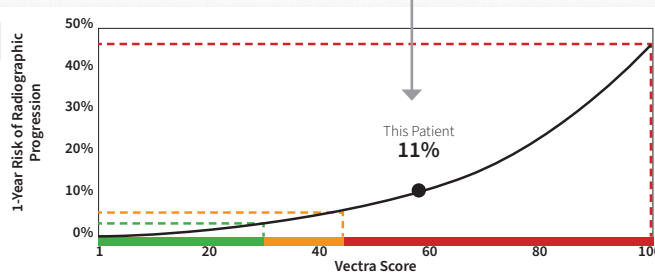
1 in 5 patients in clinically defined remission had progression of radiographic joint damage over 1-year⁴



RISK OF RADIOGRAPHIC PROGRESSION (RP)

The risk of RP is shown as a function of Vectra Score (see graph, right). The definition of RP is a 1-year total Sharp score change of >5 units. Increased risk of RP means a greater chance of irreversible joint damage.

Patient serostatus may affect the risk of radiographic progression. Thus, the actual risk of radiographic progression may be higher if this patient is seropositive and lower if this patient is seronegative.



Radiographic Progression Chart⁵

The Vectra Score correlates to the risk of radiographic progression, which may lead to permanent joint damage. The higher the score, the higher the risk of irreversible joint damage.

* Radiographic progression is assessed by validated Sharp score method. A change in Sharp score of more than 5 within a year is considered rapid RP.



Inflammation can be more than painful and swollen joints. Inflammation can affect your entire body, including your organs. Vectra is an objective measure of your disease activity and inflammation that goes beyond signs and symptoms.⁶

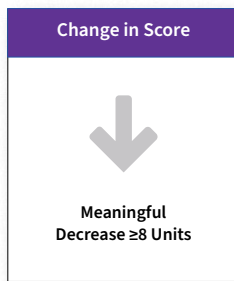
Understand Your Result: Change in Score

3

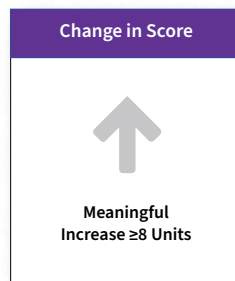
CHANGE IN SCORE

The change in Vectra Score reflects the change in inflammation making it a useful tool to help guide medical management decisions when used over time.⁷

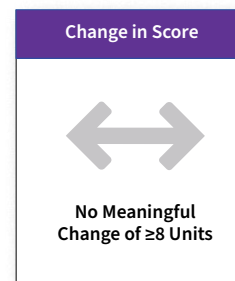
Changes of 8 or more in high and moderate Vectra Scores represent a meaningful change in RA inflammation. An increase in score by 8 or more units indicates an increased level of inflammation and greater risk of joint damage, and may indicate a need to change your treatment. A decrease in score by 8 or more units suggests a decrease in disease activity and a lower risk of joint damage, meaning your current treatment is working.⁷



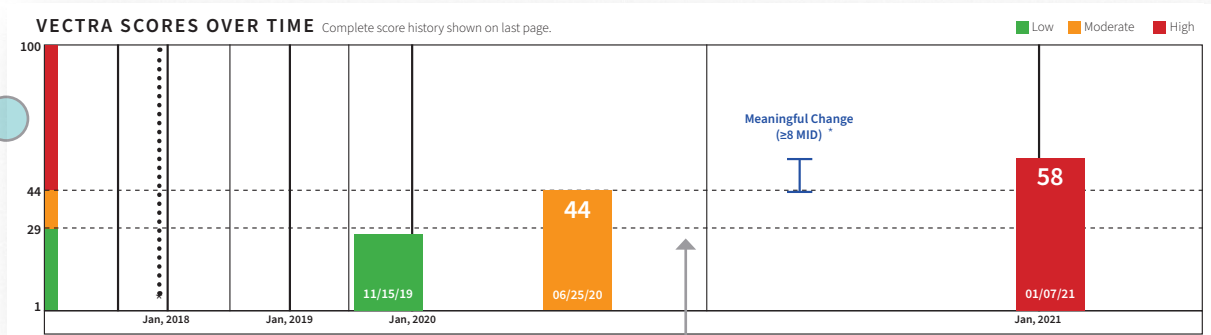
Patient score decreased by 8 or more units from previous test



Patient score increased by 8 or more units from previous test



Patient score did not increase or decrease by 8 or more units from previous test



Vectra Scores Over Time

The Vectra Scores Over Time graph represents how your RA disease and inflammation are trending. Consistent testing provides greater insight to your disease state. Your initial score is considered a baseline score and will be compared to future scores to identify a meaningful change.⁷

If there is a change in Vectra Score of 8 or more units representing a Meaningful Change in moderate or high scores, it will be indicated in the Vectra Scores Over Time graph.

A meaningful change of 8 or more helps guide treatment decisions.⁷

* MID: Meaningful Important Difference

Understand Your Result: Vectra Score Interpretation

4

VECTRA SCORE INTERPRETATION*

Regular testing is recommended in order to accurately monitor your disease and treatment.

Low Score (1-29) Consider...

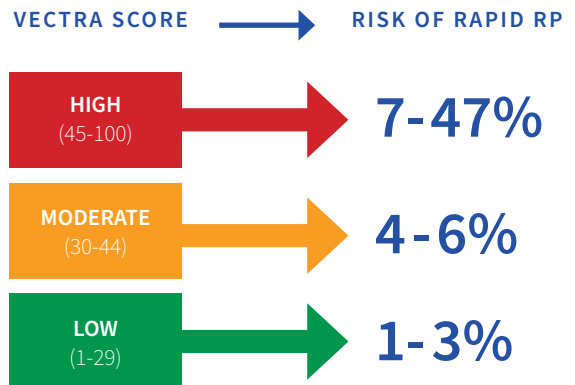
- No treatment change may be needed. Talk to your doctor about retesting in 6 to 12 months, or sooner if indicated. If your score is considered low or is continuing to decrease over time (two or more consecutive tests), your doctor may choose to reduce your current treatment.

Moderate Score (30-44) Consider...

- Talk to your doctor about any treatment changes if your Vectra Score has increased by 8 or more units or if there has not been a significant decrease when compared to your previous Vectra Score. A change to your treatment may mean increasing your current medication or considering a new medication. Talk to your doctor about retesting in 3 months.
- With a Vectra Score in the moderate category, it is also possible that no treatment change is needed. For example, if your score has decreased by 8 or more units since your previous Vectra Score, this would demonstrate a significant decrease in your disease activity, and your doctor may recommend that you continue with your current treatment. If you have recently changed your treatment dose or your medication, your doctor may recommend that you continue with your current treatment. Talk to your doctor about retesting in 3 months.

High Score (45-100) Consider...

- Your doctor may consider a change to your treatment if your score has not decreased by 8 units since your previous Vectra test. A change to your treatment may mean increasing your current medication or considering a new medication. Talk to your doctor about retesting in 3 months.
- If your score has decreased by 8 or more units since your previous Vectra Score, or if you have recently changed your treatment dose or your medication, your doctor may recommend that you continue with your current treatment plan. Talk to your doctor about retesting in 3 months.



Patients with a high Vectra Score are at 7% to 47% risk of irreversible joint damage within the next 1 year⁵

*The Vectra Score Interpretation provides recommended treatment guidance. Only a medical professional can make treatment decisions concerning the medical management of patients. Recommendations data is currently in study, clinical trial is ongoing.



Understanding Risk for Radiographic Progression (Permanent Joint Damage)

Patients in the high and moderate categories are considered to have uncontrolled inflammation, and may require treatment modification. Vectra is the best predictor of radiographic progression and permanent joint damage. Studies have shown that the risk of radiographic progression is higher in patients with high Vectra Scores, even in cases where the CRP and ESR were low. Patients with a lower Vectra Score had less radiographic progression.^{2,8}

The Vectra Test Report

Vectra by **labcorp** FINAL

ORDERING PHYSICIAN: **PHYSICIAN ONE**

RECEIVING HEALTHCARE PROVIDER Any Provider Any Street City, State ZIP	SPECIMEN Collection Date: 00/00/0000 0000 Local Receipt Date: 00/00/0000 0000 ET	PATIENT Name: Patient, Test Date of Birth: 00/00/0000 Patient ID: 0000000000 Gender: Gender TRF ID: 0000000000
Phone: 000-000-0000	REPORT Report Date: 00/00/0000 0000 ET	

Vectra Molecular Result

Vectra Score	Risk of RP	Change in Score	Vectra Score Interpretation
74 HIGH (45-100)	21% 1-Year Risk of Radiographic Progression	Meaningful Change Not Calculated Multiple Vectra scores required for meaningful change calculation	High Vectra Score: 74 Patient has a High Vectra Score and is at increased risk for radiographic progression. Consider adjusting treatment regimen to reduce inflammation, and retesting at the next clinical visit.

VECTRA SCORE DESCRIPTION

Vectra Disease Activity Levels: ■ Low: 1 to 29 ■ Moderate: 30 to 44 ■ High: 45 to 100

Vectra Score measures the concentrations of 12 serum proteins. An algorithm is applied to these concentrations to calculate a disease activity score on a scale of 1 to 100. The Vectra Score is personalized based on the age, gender, and adiposity of the patient.

RISK OF RADIOGRAPHIC PROGRESSION (RP)

The risk of RP is shown as a function of Vectra Score (see chart, right). The definition of RP is a 1-year total Sharp score change of >5 units. Increased risk of RP means a greater chance of irreversible joint damage.

Patient serostatus may affect the risk of radiographic progression. Thus, the actual risk of radiographic progression may be higher if this patient is seropositive and lower if this patient is seronegative.

CHANGE IN SCORE DESCRIPTION

Change in Score is assessed in relation to the Minimally Important Difference (MID) for Vectra. The MID for patients with a Moderate or High Vectra Score is 8.0.

VECTRA SCORES OVER TIME Complete score history shown on last page.

*As of December 4, 2017 the Vectra Score is adjusted based on the age, gender and adiposity of the patient.

This test was developed and its performance characteristics determined by Labcorp. It has not been cleared or approved by the Food and Drug Administration.

©2022 Laboratory Corporation of America® Holdings. All Rights Reserved. This document contains private and confidential health information protected by state and federal law. If you have received this document in error please call 877-743-8639.

Sample 1 of 4

Individual Biomarker Results

The Vectra Score is calculated from the analysis of 12 biomarkers (proteins, growth factors and hormones) that have been linked to RA. Each biomarker represents a different biological pathway in RA and carries different weight in the Vectra algorithm that is used to calculate your Vectra Score. A result for each biomarker is provided in the table, and the reference range for each biomarker, specific to patients with RA, is shown in the next column. These biomarker results should not be evaluated individually.

- ① Vectra CRP concentrations may differ from those provided by other labs and cannot be used interchangeably.
- ② Leptin as a measure of adiposity (body mass) is used in calculation of the Vectra Score.

Vectra Report Header

Your information will include your Vectra patient ID number and your test ID number, also known as test requisition number (TR). This test ID will also appear on any billing information as your account number.

Monitoring your Vectra Score over time is key to understanding your disease activity and how well your inflammation is being controlled.

Vectra by **labcorp** FINAL

PATIENT: **Patient, Test** DOB: 00/00/0000 PATIENT ID: 0000000000 REPORT DATE: 00/00/0000

Individual Biomarker Results

TYPE	BIOMARKER	RESULT / UNITS	RA RANGE ¹	RA PERCENTILE ²
ACUTE PHASE PROTEINS	SAA ^{1†}	9.9 µg/mL	0.29-85	84%
	CRP ^{1†}	46 mg/L	0.19-92	93%
ADHESION MOLECULES	VCAM-1 ^{1‡}	0.53 µg/mL	0.39-1.2	21%
CYTOKINE-RELATED PROTEINS	IL-6 ^{1†}	55 pg/mL	2.5-200	89%
	TNF-β ^{1†}	1.9 ng/mL	0.8-3.9	73%
GROWTH FACTORS	EGF ^{1†}	14 pg/mL	12-410	3%
	VEGF-A ^{1‡}	780 pg/mL	75-790	97%
HORMONES	Leptin ^{1†}	3.4 ng/mL	1.5-120	7%
	Resistin ^{1†}	7.4 ng/mL	3.5-21	45%
MATRIX METALLOPROTEINASES	MMP1 ^{1†}	25 ng/mL	1.3-23	98%
	MMP3 ^{1†}	66 ng/mL	7.9-160	88%
SKELLETAL-RELATED PROTEINS	YKL-40 ^{1†}	340 ng/mL	22-540	94%

Please note: These reported analyte values and reference ranges are intended for use in the generation of the Vectra score only. These results should not be used interchangeably with results generated by different methodologies.

¹ These 95% reference ranges were established from 325,781 patient samples tested at Crescendo Bioscience Clinical Laboratory.

² Inversely correlated with disease activity.

³ Subject's biomarker level relative to levels in RA patient specimens from which the RA ranges were determined.

Please note: The individual biomarker results, which are expressed to two significant figures, are required inputs into the algorithm used to calculate the Vectra Score. Clinical interpretation of individual biomarker levels, which have different weights in the Vectra algorithm, has not been established.

Complete Vectra Score History

COLLECTION DATE	SCORE	NOTES
00/00/0000 ^{1†}	74	

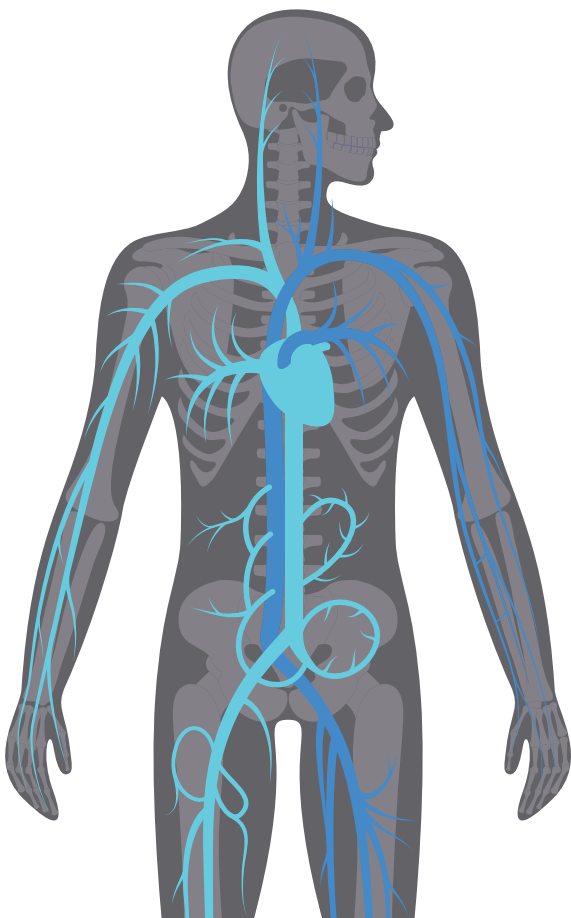
This test was developed and its performance characteristics determined by Labcorp. It has not been cleared or approved by the Food and Drug Administration.

©2022 Laboratory Corporation of America® Holdings. All Rights Reserved. This document contains private and confidential health information protected by state and federal law. If you have received this document in error please call 877-743-8639.

Sample 2 of 4

CARDIOVASCULAR RISK

Vectra Cardiovascular Risk is a validated prognostic test that incorporates a multi-biomarker assessment of RA inflammation and predicts your risk of having a major cardiovascular (CV) event in the next 3 years.*⁹



The Vectra Cardiovascular Risk incorporates:

- RA inflammation indicated by your Vectra Score and three of its biomarkers
- Age
- Conventional risk factors, such as tobacco use and diabetes

Vectra Cardiovascular Risk places you into 1 of 4 categories - Low, Borderline, Intermediate or High:

- Patients with a lower Vectra Score have a lower average cardiovascular risk when clinical factors such as age, sex and medical history are the same⁹

If your risk for cardiovascular disease (CVD) is elevated, treatment options should be discussed with your doctor and may include:

- Treatment for RA inflammation and other CV risk factors
- Lifestyle changes



FACT: Patients with RA have a nearly 50% greater risk of experiencing a cardiovascular event than the general U.S. population, and CVD is the leading cause of death in RA patients.^{10, 11}

Understand Your Vectra[®] Cardiovascular Risk Report

Cardiovascular Risk Percentage

Vectra CV Risk informs you of **your risk of having a cardiovascular event** (e.g., heart attack or stroke) **in the next 3 years**

Vectra by labcorpFINAL

PATIENT: Patient, TestDOB: 00/00/0000PATIENT ID: 0000000000REPORT DATE: 00/00/0000

Vectra Cardiovascular Risk

VECTRA CARDIOVASCULAR RISK RESULT

4.9% RISK

RESULT: The patient has a 4.9% RISK for a cardiovascular event* in the next 3 years. This patient is in the INTERMEDIATE RISK category.

Cardiovascular Risk Categories: Low Risk <1.3% Borderline Risk ≥1.3% to <1.8% Intermediate Risk ≥1.8% to <5.2% High Risk ≥5.2%

*Cardiovascular (CV) event refers to having a heart attack, stroke or CV-related death.

PATIENT CLINICAL INFORMATION
Improved management of rheumatoid arthritis inflammation and other CVD risk factors may reduce CV risk.

VECTRA SCORE

74

HIGH
(45-100)

Age	54
Diabetes Diagnosis	NO
Hypertension (High Blood Pressure) Diagnosis	YES
Other Cardiovascular Disease Diagnosis [^]	YES
Tobacco Use (Past or Present)	NO

[^]The Test Requisition Form asked whether the patient has ever been diagnosed with: Atrial Fibrillation, Transient Cerebral Ischemia or TIA, Peripheral Artery Disease or Atherosclerosis, Heart Failure, Coronary Artery Disease (including Angina Pectoris or other forms of Ischemic Heart Disease), Aortic Aneurysm or Dissection, Nontraumatic Intracranial Hemorrhage (not leading to stroke)

VECTRA CARDIOVASCULAR RISK INTERPRETATION
This patient's Vectra Cardiovascular Risk Score is 4.6 and is associated with a 4.9% risk for a cardiovascular event* in the next 3-years. CV risk of ≥1.8% suggests that evaluation and management of rheumatoid arthritis inflammation and other CV risk factors may be beneficial.

VECTRA CARDIOVASCULAR RISK DESCRIPTION
Vectra Cardiovascular Risk is calculated using the Vectra Score, 3 of the Vectra biomarkers (leptin, MMP-3 and TNF-R1), patient age, and clinical information provided on the test requisition form. An algorithm uses these values to generate a Cardiovascular Risk Score and from it the percentage risk, which represents the likelihood of this patient having a CV event (heart attack, stroke, or CV-related death) in the next 3 years.

Vectra Cardiovascular Risk is only intended for rheumatoid arthritis patients age 40 and above with no prior history of heart attack or stroke. Vectra Cardiovascular Risk is not intended for patients using anti-IL-6R treatment, patients with a diagnosis of cancer (excluding non-melanoma skin cancer), or patients that have been hospitalized within the past 14 days.

This test was developed and its performance characteristics determined by Labcorp. It has not been cleared or approved by the Food and Drug Administration.

©2022 Laboratory Corporation of America® Holdings. All Rights Reserved.
This document contains private and confidential health information protected by state and federal law. If you have received this document in error please call 877-743-8639.

Sample
3 of 4

Cardiovascular Risk Categories

Your cardiovascular risk percentage is associated with a cardiovascular risk category. There are four categories:

- **Low** (less than 1.3%)
- **Borderline** (at or between 1.3% and 1.8%)
- **Intermediate** (between 1.8% and 5.2%)
- **High** (5.2% or higher)

Patient Clinical Information

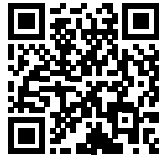
This section captures the information that was used to calculate your Vectra CV Risk result. Your **Vectra Score**, **age** and **clinical history** such as **high blood pressure**, **diabetes** and **tobacco use** were used to create the risk percentage.

Vectra Score

The Vectra Score, your **personalized measurement of RA inflammation**

Patients that fall into the Intermediate and High categories may benefit from evaluation and management of RA inflammation and other CV risk factors, such as controlling diabetes and hypertension.

Patient Support and Resources



[Labcorp.com/RApatients](https://labcorp.com/RApatients)

Your online resource to learn more, hear patient stories and access additional patient information.



**Because of Vectra, I've become
an active, informed member
of my healthcare team.”**

— Stacie, Vectra patient



Access your Vectra results at Labcorp Patient™
at patient.labcorp.com

Disease Management Is a Shared Effort



Patient
Assessment



Physician
Assessment



Molecular
Assessment

Vectra®

molecular assessment of
12 biomarkers

Vectra should be used in conjunction with your doctor's assessment and your self-assessment.

It is important to factor in all three assessments, even when they do not agree.



[Labcorp.com/RApatients](https://labcorp.com/RApatients) | 1-877-743-8639

Note: This material is provided for general information purposes only. It is not intended as a substitute for medical advice and/or consultation with a physician or technical expert.

References:

1. Curtis JR, Flake DD, Weinblatt ME, et al. Adjustment of the multi-biomarker disease activity score to account for age, sex and adiposity in patients with rheumatoid arthritis. *Rheumatology (Oxford)*. 2019;58(5):874-883. doi:10.1093/rheumatology/key367.
2. Hambardzumyan K, Bolce R, Saevarsdottir S, et al. Pretreatment multi-biomarker disease activity score and radiographic progression in early RA: results from the SWEFOT trial. *Ann Rheum Dis*. 2015;74(6):1102-1109. doi:10.1136/annrheumdis-2013-204986.
3. Curtis JR, Weinblatt ME, Shadick NA, et al. Validation of the adjusted multi-biomarker disease activity score as a prognostic test for radiographic progression in rheumatoid arthritis: a combined analysis of multiple studies. *Arthritis Res Ther*. 2021;23(1):1. doi:10.1186/s13075-020-02389-4.
4. Brown AK, Conaghan PG, Karim Z, et al. An explanation for the apparent dissociation between clinical remission and continued structural deterioration in rheumatoid arthritis. *Arthritis Rheum*. 2008;58(10):2958-2967. doi:10.1002/art.23945.
5. Huizinga T, Weinblatt M, Shadick N, et al. Predicting risk of radiographic progression for patients with rheumatoid arthritis [abstract]. *Arthritis Rheumatol*. 2019; 71 (suppl 10). <https://acrabstracts.org/abstract/predicting-risk-of-radiographic-progression-for-patients-with-rheumatoid-arthritis/>. Accessed May 29, 2020.
6. Centers for Disease Control and Prevention. Rheumatoid Arthritis. www.cdc.gov/arthritis/basics/rheumatoidarthritis.html. Accessed February 15, 2019.
7. Chernoff D, Scott Eastman P, Hwang CC, et al. Determination of the minimally important difference (MID) in multi-biomarker disease activity (MBDA) test scores: impact of diurnal and daily biomarker variation patterns on MBDA scores. *Clin Rheumatol*. 2019;38(2):437-445. doi:10.1007/s10067-018-4276-y.
8. Li W, Sasso EH, van der Helm-van Mil AHM, Huizinga TWJ. Relationship of multi-biomarker disease activity score and other risk factors with radiographic progression in an observational study of patients with rheumatoid arthritis. *Rheumatology*. 2016;55(2):357-366.
9. Curtis JR, Xie F, Crowson CS, et al. Derivation and internal validation of a multi-biomarker-based cardiovascular disease risk prediction score for rheumatoid arthritis patients. *Arthritis Res Ther*. 2020;22(2). <https://doi.org/10.1186/s13075-020-02355-0>.
10. Aviña-Zubieta JA, Choi HK, Sadatsafavi M, Etminan M, Esdaile JM, Lacaille D. Risk of cardiovascular mortality in patients with rheumatoid arthritis: a meta-analysis of observational studies. *Arthritis Rheum*. 2008;59(12):1690-1697. doi:10.1002/art.24092.
11. Chodara AM, Wattiaux A, Bartels CM. Managing cardiovascular disease risk in rheumatoid arthritis: clinical updates and three strategic approaches. *Curr Rheumatol Rep*. 2017;19(4):16. doi:10.1007/s11926-017-0643-y

