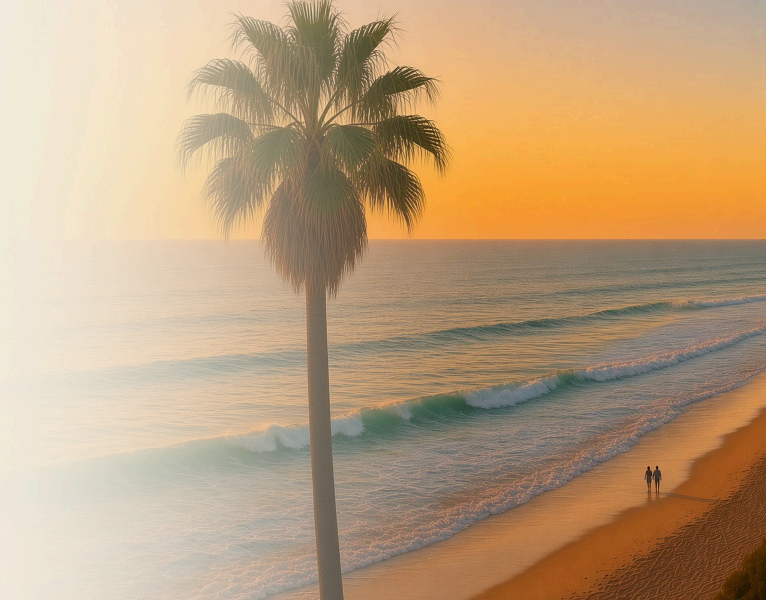
DAMIANRASCH.COM

DAMIAN RASCH, D.O.

ENCINITAS · LA JOLLA, CALIFORNIA



# Right Bundle Branch Block

*A common EKG finding that often has little effect on how the heart pumps. What it means, and when to act fast.*

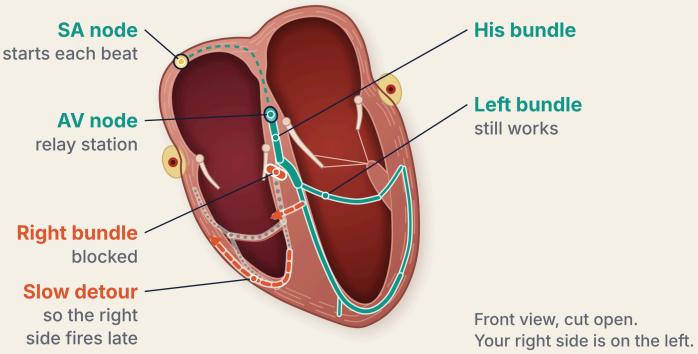
**0.2–1.3%**
of people in the general population have RBBB, and it becomes more common with age

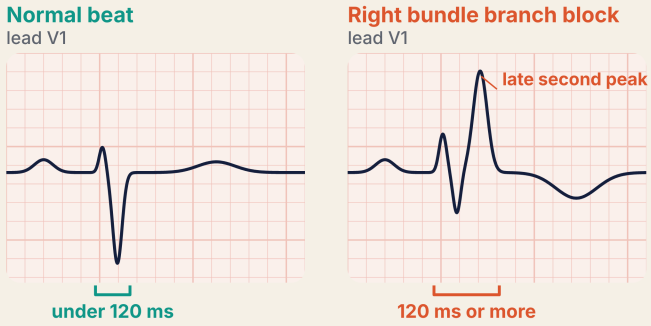
**About 4%**
of men in their seventies and eighties have RBBB, with women affected less often

**120 ms+**
QRS width on the EKG means complete RBBB. From 110 to 120 ms it is called incomplete.

WHAT'S HAPPENING

## The signal to the right side arrives late




Simplified drawings, not real tracings. One small box is 40 ms.

Each beat starts in the sinoatrial (SA) node, your natural pacemaker, passes the AV node and races down the septum (the wall between the lower chambers) through a left and a right bundle branch. When the right bundle is blocked, the left ventricle squeezes on schedule and the signal spreads slowly across to the right ventricle, which contracts a fraction of a second late. The block doesn't damage heart muscle, and with an otherwise normal heart it usually has very little effect on pumping.

BENIGN OR A CLUE

## A subtle warning light on the dashboard

**Usually benign**
Most people with isolated RBBB pump normally and live normal lives, often without knowing they have it.

**A modest risk marker**
The Copenhagen City Heart Study found a real but modest rise in heart risk in the general population, including people without heart disease.

**Look closer when**
Fainting, known heart disease, a QRS of 130 ms or more with extreme left axis deviation on the EKG, or a block that alternates sides.

### Get it evaluated

If you've been told you have RBBB and haven't seen a cardiologist, get that evaluation. You don't need to panic or change your life. With isolated RBBB, most people live normal lifespans and can work, exercise and live fully.



WHEN TO ACT FAST, THE WORKUP AND TREATMENT ARE ON THE BACK

THE CHECKUP AND BEYOND

# When to act fast, and what comes next

## ACT FAST

time is muscle

| | |
|---|---|
| **Chest pain with RBBB** | New or not, this can signal a heart attack, and new RBBB can mean a large one in the front wall of the heart. Call 911. |
| **Other symptoms** | Fainting or nearly fainting, or severe palpitations, call for immediate evaluation. |

## THE WORKUP

| | |
|---|---|
| **History and exam** | Fainting, palpitations, shortness of breath, a past heart attack, high blood pressure or diabetes, and any family history of sudden cardiac death. The exam checks for murmurs and signs of heart failure. |
| **Echocardiogram** | This ultrasound is almost always appropriate. It shows the heart's structure, pumping strength (ejection fraction), valves and any scarring. |
| **Stress test** | May be ordered if exercise brings on symptoms or blocked arteries are a question. RBBB makes some EKG leads harder to read during exercise, but the test is still useful. |
| **Electrophysiology study** | Used for fainting or concerning symptoms. Catheters inside the heart test the wiring to see whether a pacemaker is needed. |

## TREATMENT

| | |
|---|---|
| **The block itself** | No treatment is needed, and no medicine or procedure reverses it. A pacemaker for isolated RBBB without symptoms is not beneficial and is recommended against. |
| **The cause** | Treating what's behind it, such as high blood pressure, coronary disease or a weak heart muscle, plus cholesterol, weight, exercise and not smoking. |
| **When a pacemaker may fit** | Fainting with conduction problems found on an electrophysiology study, a block that alternates between sides, or a slow heart rate with symptoms and advanced conduction disease. |

## EXERCISE AND FOLLOW-UP

| | |
|---|---|
| **Exercise** | The answer is yes in the vast majority of cases. For most people with RBBB, regular aerobic exercise within your tolerance is safe and beneficial. |
| **Athletes** | With complete RBBB, the 2015 AHA task force recommends an echo and a stress test. If both are normal, with no fainting or near fainting and no family history of sudden death, clearance for all competitive sports is appropriate. |
| **Follow-up** | With normal tests and no symptoms, typically a visit once a year with a periodic EKG. New shortness of breath or fainting should be checked promptly. Chest pain means call 911. |
| **Pregnancy** | Uncomplicated RBBB is generally not a reason to avoid pregnancy, but talk it over with your cardiologist beforehand. |

## WHAT CAUSES IT?

High blood pressure is the most frequent cause. Others include coronary disease, other structural heart disease, age-related wear on the wiring and, occasionally, lung disease. Often no cause is found, especially in younger people and athletes.

## READ THE FULL ARTICLE

damianrasch.com/rbbb

For education only, and not a substitute for advice from your own physician. Sources include the 2018 ACC/AHA/HRS conduction guideline, the 2023 ESC acute coronary syndrome guideline, the Copenhagen City Heart Study (Eur Heart J 2013), the Framingham Study (1980) and the 2015 AHA/ACC athlete statement.

DR. DAMIAN RASCH, D.O. · BOARD-CERTIFIED INVASIVE CARDIOLOGIST · ENCINITAS AND LA JOLLA, CA

MADE IN CALIFORNIA