

# Laboratory Testing for Folate Deficiency

## Author

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## Background

Folate is found in vegetables, fruit, cereals, and dairy products. Folate deficiency is rare in the era of food fortification. It may be seen with very poor diet, alcoholism and malabsorption. Folate deficiency may lead to megaloblastic anaemia and neural tube defects.

## Scope

Folate testing in adults in hospitals and in primary care settings in the Republic of Ireland.

## Key recommendations

Limit folate testing to patients with a recognised clinical indication and avoid screening with a folate test. Do not include it as part of a standard admission order set for example. Serum folate is the first-line test of choice.

## Testing

### Who to test-indications for testing

- Haematological
  - unexplained anaemia / other cytopenias
  - unexplained macrocytosis
  - haemolysis
- Pregnancy
- Malabsorption
- Anticonvulsant therapy
- Methotrexate therapy
- Alcoholism
- Dialysis patients

### Who not to test

There is no value in re-testing folate in patients who are already on folic acid unless symptoms or blood counts fail to improve.

Routine screening for folate deficiency is not indicated.

### How to test

Serum folate and red cell folate are the commonly available tests. Serum folate reflects recent folate status and intake whereas red cell folate level reflects tissue folate status over the lifetime of the red cells. Serum folate measurement may be better than red cell folate because it is affected by fewer pre-analytical and analytical variables and is the first-line test of choice. Red cell folate may be useful in patients with macrocytosis who have a normal serum folate.

## References

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