

Stroke

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Brain doesn't get enough O_2 [DEPTH OF BIOLOGY]

Most common cause is Blockage in Blood Vessel to brain

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due to Blood clot getting trapped, there the
Blood vessel Narrows

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Blood Vessel gets blocked off.

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Blood can no longer flow

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 O_2 cannot reach to the Brain tissues

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Brain tissue starts to die.

* Sometimes clot dissolve on its own before, the
permanent damage occurs

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called as Transient Ischemic Attack T.I.A
or Mini-stroke [DEPTH OF BIOLOGY]

T.I.A is a warning sign that a large and a
more severe stroke is likely to occur.

* TIA should never be ignored

Hence TIA should never be ignored.

* A stroke should be treated within the first few hours in order to increase the chance of survival and good recovery.

∴ TIA should never be ignored.

[DEPTH OF BIOLOGY]

Sign and Symptoms

F	A	S	T
Face	Arm	Speech	Time

F = Face → one side of the face start to droop and becomes hard to move. Smiles crookedly.

A = Arm Weakness → inability to hold both arms out straight in front of body.

Sometimes stroke may initially cause weakness in legs.

S = Speech → slurring in the speech or having trouble in understanding what others are saying.

T = Time → call emergency services immediately when these symptoms appears.

[DEPTH OF BIOLOGY]

Stroke do involve other symptoms too but these were the classic signs of stroke

If a patient is suspected to have a stroke
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Physician suggests C.T scan to determine the underlying cause so that patient can be treated as soon as possible [DEPTH OF BIOLOGY]

Other possible diagnostic tests are -

1. Blood tests → to check how fast the blood clots and sugar levels.
2. MRI → to create a detailed view of brain
3. Carotid Ultrasound → to detect the plaque buildup in the carotid arteries in Neck.
4. Cerebral Angiogram → uncommon test to check the detailed view of arteries of brain and neck.
5. Echocardiogram → to find the source of clot in the heart that may have travelled from the heart to brain and caused a stroke. [DEPTH OF BIOLOGY]
6. Physical Examination → FAST checked.

Risk Factors

[DEPTH OF BIOLOGY]

1. **Hypertension** → HTN most common risk factor
 - lowering BP back to normal range can result in greatest decrease in stroke risk.
2. **Smoking** → this doubles the stroke risk.
 - * within 2-4 years of quitting it risk disappears.
3. **Diabetes** → High blood sugar level
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Damage Blood Vessel.
4. **High Cholesterol** → ~~Narrow~~ Narrows blood vessels.

Treatment

[DEPTH OF BIOLOGY]

Immediate

Long term

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After few hours this will be ineffective because tissue cannot be saved afterwards.

Immediate treatment includes

1. TPA → Clot Buster Medicine

Administered immediately to dissolve the

[DEPTH OF BIOLOGY]

Blood clot and blood flow start again.

2. Thrombectomy → surgical procedure to remove large clots from brain.

[DEPTH OF BIOLOGY]

Long term Medications include

1. Aspirin → daily aspirin use to reduce the blood clot risk in future.

2. Blood Thinners → For people with abnormal heart rhythm Eg- Atrial fibrillation
Eg: Atrial fibrillation

In this case clots forms in heart → Brain
travels to

Recovery → can be slow.
It depends on the type of stroke.

It may work with

- Speech Therapists.
- Physical Therapists
- Occupational Therapists

*Depression → commonly follows stroke and should not be ignored. It gets treated when → feel Better

[DEPTH OF BIOLOGY]

Outcomes → are difficult to predict
Most have permanent neurological defects
and some recover well over time