

MOVING TOWARD MINIMALLY INVASIVE TESTING



Liquid biopsy refers to the collection and analysis of biofluids, such as blood or urine. In oncology it primarily involves the capture and analysis of cells, lipid-encapsulated sacs called exosomes, or free DNA shed by tumors into the blood. For example, a blood sample, rather than a biopsy of the tumor tissue itself, could be used to analyze genomic alterations in a patient's cancer. Currently, many liquid biopsy platforms are being developed and tested. The major advantages compared to traditional tissue biopsies are:

- Liquid biopsies have the potential to be safer, quicker, more easily obtainable, more likely to result in patient compliance, and better representative of tumor heterogeneity than a typical biopsy.
- Liquid biopsies provide minimally invasive ways to detect early evidence of disease, monitor minimal residual disease, and repeatedly sample the genomes of different tumor lesions to evaluate whether a cancer is responding to treatment or becoming treatment resistant and, if it is developing resistance, determine what treatment might be the most appropriate next option.

Ongoing research will continue to evaluate the clinical utility of these approaches.

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