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Physical exercise and cancer

Exercise is any bodily activity that enhances or maintains physical fitness and overall health and wellness. It is performed for various reasons, to aid growth and improve strength, preventing aging, developing muscles and the cardiovascular system, honing athletic skills, weight loss or maintenance, improving health and also for enjoyment. Many individuals choose to exercise outdoors where they can congregate in groups, socialize, and enhance well-being.

Physical activity is defined as any movement that uses skeletal muscles and requires more energy than does resting. Physical activity can include working, exercising, performing household chores, and leisure-time activities such as walking, tennis, hiking, bicycling, and swimming.

Physical activity is essential for people to maintain a balance between the number of calories consumed and the number of calories used. Consistently expending fewer calories than are consumed leads to obesity, which scientists have convincingly linked to increased risks of 13 different cancers . Additionally, evidence indicates that physical activity may reduce the risks of several cancers through other mechanisms, independent of its effect on obesity.

There is substantial evidence that higher levels of physical activity are linked to lower risks of several cancers .

Breast cancer: Many studies show that physically active women have a lower risk of breast cancer than inactive women; Physical activity has been associated with a reduced risk of breast cancer in both premenopausal and postmenopausal women; however, the evidence for an association is stronger for postmenopausal breast cancer . Women who increase their physical activity after menopause may also have a lower risk of breast cancer than women who do not . For a number of other cancers, there is more limited evidence of a relationship with physical activity. In a study of over 1 million individuals, leisure-time physical activity was linked to reduced risks of esophageal adenocarcinoma, liver cancer, gastric cardia cancer (a type of stomach cancer), kidney cancer, myeloid leukemia, myeloma, and cancers of the head and neck, rectum, and bladder . These results are generally corroborated by large cohort studies or meta-analyses . Exercise has a number of

biological effects on the body, some of which have been proposed to explain associations with specific cancers, including: Lowering the levels of hormones, such as insulin and estrogen, and of certain growth factors that have been associated with cancer development and progression [breast, colon] , Helping to prevent obesity and decreasing the harmful effects of obesity, particularly the development of insulin resistance (failure of the body's cells to respond to insulin), Reducing inflammation , Improving immune system function ,Altering the metabolism of bile acids, resulting in decreased exposure of the gastrointestinal tract to these suspected carcinogens [colon] Reducing the amount of time it takes for food to travel through the digestive system, which decreases gastrointestinal tract exposure to possible carcinogens [colon]

Physical activity is also beneficial for cancer survivors?

Research indicates that physical activity may have beneficial effects for several aspects of cancer survivorship--specifically, weight gain, quality of life, cancer recurrence or progression, and prognosis (likelihood of survival) . Most of the evidence for the potential benefits of physical activity in cancer survivors comes from people diagnosed with breast, prostate, or colorectal cancer

Breast cancer: Consistent evidence from epidemiologic studies links physical activity after diagnosis with better breast cancer outcomes . For example, a large cohort study found that women who exercised moderately (the equivalent of walking 3 to 5 hours per week at an average pace) after a breast cancer diagnosis had approximately 40% to 50% lower risks of breast cancer recurrence, death from breast cancer, and death from any cause compared with more sedentary women . The potential physical activity benefit with regard to death from breast cancer was most apparent in women with hormone receptor–positive tumors .

Another prospective cohort study found that women who had breast cancer and who engaged in recreational physical activity roughly equivalent to walking at an average pace of 2 to 2.9 mph for 1 hour per week had a 35% to 49% lower risk of death from breast cancer compared with women who engaged in less physical activity .

Research under way on the relationship between physical activity and cancer?

Many questions remain to be answered in several broad areas of research on physical activity and cancer: Although the evidence for causal link is strong for a few cancers, for others it is not, and the question of causality remains an important one. That is, does being physically inactive cause cancer and/or does being physically active prevent cancer? If the association is causal, what is the optimal time in life, intensity, duration, and/or frequency of physical activity needed to reduce the risk of cancer, both overall and for specific sites? Do biomarkers of cancer risk or progression that are affected by physical activity exist? Does the association between physical activity and cancer differ in populations that have higher proportions of inactive and/or obese individuals compared with the general population? Does physical activity benefit people with a genetic susceptibility to cancer?

The current recommendations include:

- For all adults, exercise is important for cancer prevention and specifically lowers risk of seven common types of cancer: colon, breast, endometrial, kidney, bladder, esophagus and stomach
- For cancer survivors, incorporate exercise to help improve survival after a diagnosis of breast, colon and prostate cancer
- Exercising during and after cancer treatment improves fatigue, anxiety, depression, physical function, quality of life and does not exacerbate lymphedema
- Continue research that will drive the integration of exercise into the standard of care for cancer
- Translate into practice the increasingly robust evidence base about the positive effects of exercise for cancer patients

Exercise not only changes your body, it changes your mind, your attitude and your mood

Chidambarmurthy Joshi
TO –C, (Library)

कैंसर की रोकथाम में एन आई सी पी आर टीम का एक प्रयास

“ महिलाओं के कैंसर की जांच होती है निशुल्क “



“सेक्टर 39 स्थित राष्ट्रीय कैंसर रोकथाम एवं अनुसंधान संस्थान अपने नाम को सही मायने में सार्थक कर रहा है , कैंसर रोकथाम की दिशा में जो प्रयास संस्थान ने महिलाओं के लिए कर रहा है , वो वास्तव में एक अच्छा कदम है! संस्थान के अनुभवी और योग्य स्त्री रोग विशेषज्ञ , पैथोलोजिस्ट, मेडिकल सोशल वर्कर , आईटी एक्सपर्ट, लेडी हेल्थ विजिटर, नर्स एवं अन्य पैरामेडिकल स्टाफ की मेहनती टीम ने कैंसर स्क्रीनिंग कार्यक्रम को सफल बनाने का छोटा सा प्रयास है! कैंसर संस्थान पाए जाने वाले मुख्य कैंसर की स्क्रीनिंग द्वारा बचाव एवं रोकथाम की दिशा में बेहतरीन कार्य कर रहा है! क्योंकि एन आई सी पी आर की टीम का मानना है की “पूर्व निदान द्वारा ही कैंसर का बचाव संभव है”

“महिलाओं को जागरूक एवं प्रेरित कर हो रही है कैंसर स्क्रीनिंग”

आधुनिक जीवन शैली ने जहाँ महिलाओं का सर्वांगीण विकास किया है, वहीं आजकल की बढ़ती कैंसर जैसी स्वास्थ्य समस्या को भी बढ़ाया है ! संस्थान का मुख्य उद्देश्य महिलाओं में पाए जाने वाले दो मुख्य कैंसर : बच्चेदानी(गर्भाशय) का एवं स्तन का कैंसर का पूर्व कैंसर अवस्था में पता लगाना है ! महिलाओं में जागरूकता एवं प्रेरित कर संस्थान की क्लीनिकल विभाग की टीम कर रही है नोएडा के आस पास गांव में एन आई सी पी आर की टीम जाकर जागरूकता फैला कर रहे हैं कैंसर स्क्रीनिंग ! कैंसर की जानकारी , बचाव, रोकथाम और स्क्रीनिंग की महत्वता बताते हुए महिलाओं को कर रहे हैं जागरूक !

नोएडा के आसपास के गांव की महिलाएं हो रही है लाभान्वित”

नोएडा के आसपास के गाँव की महिलाओं की भी हो रही है जांच ,मुफ्त गाडी की सुविधा भी प्रदान की जाती है संस्थान की इस पहल में आशा कार्यकर्ता का भी सराहनीय सहयोग है ! आशा कार्यकर्ता एवं संस्थान के सोशल वर्कर और लेडी हेल्थ विजिटर द्वारा नोएडा के आसपास के सभी गाँव जिसमें हरौला, बरोला, सर्फाबाद, भंगेल, नया बांस , चौड़ा गांव, मोरना, निठारी , झुंडपुरा, लखनावली, सेक्टर 8, सदरपुर, छलेरा शामिल हैं जहाँ महिलाओं को कैंसर की जानकारी दी जाती है और उन्हें कैंसर स्क्रीनिंग हेतु प्रेरित किया जाता है, जिससे सभी महिलाएं संस्थान में मिलने वाली सुविधा का लाभ उठा सके ! !

"संस्थान की क्लिनिक है कैंसर स्क्रीनिंग का मुख्य केंद्रबिंदु"



संस्थान में प्रतिदिन सोमवार से शुक्रवार प्रातः 9 बजे से सायं 4 बजे तक स्वास्थ्य संबंधन क्लिनिक आयोजित की जाती है जिसमें महिलाओं की बच्चेदानी एवं स्तन कैंसर की जांच और सभी पुरुष वर्ग की मुख के कैंसर की जांच मुफ्त की जाती है ! क्लिनिक में ब्लड प्रेशर, ब्लड शुगर, लम्बाई, वजन, बी एम् आई के साथ पुरुषों के मुख परीक्षण के साथ साथ महिलाओं का बच्चेदानी के कैंसर एवं स्तन कैंसर परीक्षण किया जाता है ! महिलाओं को स्वयं स्तन परीक्षण करना भी सिखाया जाता है, जिससे वह स्वयं स्तन परीक्षण कर स्तन कैंसर होने से पूर्व ही अपना बचाव कर सकें ! मुख की जांच के साथ तम्बाकू और शराब छुड़वाने हेतु सलाह भी दी जाती है ! तम्बाकू छुड़वाने की क्लिनिक हेतु भी हर मंगलवार एम्स से डॉक्टर आकर मरीजों को मुफ्त परामर्श एवं सलाह देते हैं और उचित मार्गदर्शन करते हैं !

"कैंसर की पूर्व अवस्था का यहीं पर होता है ईलाज"



जांच के दौरान यदि किसी महिला को कैंसर की पूर्व अवस्था का पता लगता है तो हमारे वरिष्ठ एवं कुशल महिला चिकित्सक द्वारा दूरबीन और टुकड़े की जांच की जाती है और संस्थान के सीनियर पैथालॉजिस्ट द्वारा रिपोर्ट को तैयार किया जाता है ! यदि रिपोर्ट में कोई असामान्यता पाई जाती है तो थर्मोकोगुलशन और लीप द्वारा उपचार किया जाता है जिससे कैंसर को पूर्व अवस्था में ही ठीक किया जा सकता है और जांच में कैंसर का पता लगने पर आगे के उपचार हेतु आल इंडिया इंस्टिट्यूट ऑफ़ मेडिकल साइंसेज नई दिल्ली रेफेर किया जाता है,

"सुई की जांच की सुविधा"

संस्थान में प्रत्येक सोमवार से शुक्रवार 12 बजे सुई की जांच भी नियमित रूप से होती है जिसमें जिला अस्पताल , ईएसआई, और आसपास के सरकारी स्वास्थ्य केंद्रों से मरीज जांच हेतु आते हैं और योग्य पैथोलोजिस्ट द्वारा उनकी रिपोर्ट तैयार की जाती है ! रिपोर्ट में कैंसर की पुष्टि होने पर उनको रेफेरल सुविधा प्रदान की जाती है !

"प्रत्येक शुक्रवार 2 बजे से होती है ब्रेस्ट क्लिनिक "

यहाँ आने वाली सभी महिलाओं को स्वयं स्तन परीक्षण की जानकारी भी दी जाती है जिसे सीख कर वह स्तन कैंसर होने से पूर्व ही बचाव किया जा सकता है ! आल इंडिया इंस्टिट्यूट ऑफ़ मेडिकल साइंसेज ,(AIIMS) नई दिल्ली के डॉक्टरों द्वारा की जाती है जांच ! स्तन सम्बंधित सभी समस्याओं के निशुल्क परामर्श के साथ साथ में ऑनलाइन अपॉइंटमेंट भी दिया जाता है ! नोएडा जनपद के मुख्य चिकित्सा अधिकारी के सहयोग द्वारा महिलाओं हेतु मैमोग्राम कैंप का आयोजन भी किया जाता है यह

सभी सुविधा बिलकुल मुफ्त की जाती है ! इसके साथ साथ ब्रैस्ट कैंसर क्लिनिक में महिलाओं का मुफ्त अल्ट्रासाउंड भी किया जाता है!

"रविवार होती है विशेष क्लिनिक"

एन आई सी पी आर की टीम स्वेच्छा से सुबह के 9 से 2 बजे तक देती है सेवा, पुरुष वर्ग की मुख के कैंसर की स्क्रीनिंग हेतु महीने का प्रथम रविवार निर्धारित किया हुआ है, जो पुरुष नौकरी या अन्य कार्य की वजह से नियमित चलने वाली क्लिनिक में नहीं आ सकते उनके लिए रविवार को विशेष क्लिनिक आयोजित की जाती है, जिससे से वो लोग भी कैंसर स्क्रीनिंग की सुविधा का लाभ उठा सके।

"कैंप के माध्यम से कैंसर स्क्रीनिंग की सुविधाओं का विस्तार"

संस्थान का क्लीनिकल विभाग प्राथमिक स्वस्थ केंद्र और सामुदायिक स्वास्थ्य केंद्र में कैंसर स्क्रीनिंग कैंप का आयोजन कर अपनी स्वास्थ्य सेवाओं का और अधिक विस्तार कर रहा है ! इसके साथ साथ ई एस आई अस्पताल, CGHS हॉस्पिटल और अन्य सरकारी संस्थानों में कैंप का आयोजन कर महिलाओं की जांच और कैंसर जैसी जानलेवा बीमारी लेकिन जिसका समय रहते बचाव किया जा सकता है उसके बारे में जागरूक कर रहे हैं !

"एक क्लिक पर कैंसर की पूरी जानकारी"

संस्थान ने एक ऐसे पोर्टल की रचना भी की है जिससे एक क्लिक पर घर बैठे भारत में पाए जाने वाले सभी प्रमुख कैंसरों की जानकारी मिल जाती है ! <http://cancerindia.org.in/> इस लिंक पर क्लिक कर कैंसर से सम्बंधित जानकारी प्राप्त कर सकते हैं !

"ऑनलाइन अपॉइंटमेंट और गाडी की मुफ्त सुविधा"

जिसमें ऑनलाइन अपॉइंटमेंट के साथ यहाँ से गाडी की सुविधा भी प्रदान की जाती है जो कैंसर अवेयरनेस प्रिवेंशन एंड अर्ली डिटेक्शन (CAPED) संस्था के सहयोग द्वारा प्रदान की जाती है जिसके एक कार्यकर्ता द्वारा वहां मरीजों की इलाज करने में पूरी सहायता की जाती है ! गाडी की सुविधा प्रत्येक सोमवार एवं बुधवार दी जाती है

“ऑनलाइन कैंसर स्क्रीनिंग का प्रशिक्षण कोर्स”



भारत सरकार के कैंसर स्क्रीनिंग अभियान को सफल बनाने के लिए राष्ट्रीय कैंसर रोकथाम एवं अनुसंधान संस्थान ने एक नया तरीका खोज निकाला है ! इसके तहत एक जगह बैठे बैठे डॉक्टर देश के किसी भी कोने में मौजूद मरीजों की कैंसर स्क्रीनिंग कर सकते हैं! ECHO नामक अमेरिकन सॉफ्टवेयर का ऑनलाइन स्क्रीनिंग में इस्तेमाल कर रहा है ! इस एप्लीकेशन को मोबाइल लैपटॉप या कंप्यूटर में इनस्टॉल करके एक साथ कई लोगों को जोड़ा जा सकता है और उन्हें देश के किसी भी कोने से बैठकर कैंसर स्क्रीनिंग के लिए गाइड किया जा सकता है ! इको के जरिये ही संस्थान के वैज्ञानिक देश विदेश के लोगों को एक जगह बैठकर प्रशिक्षण दे रहे हैं, इको के जरिये ऑनलाइन प्रशिक्षण भी दिया जा रहा है जिससे बाद में सभी कैंसर स्क्रीनिंग कर सकें !

एन आई सी पी आर की टीम का यह प्रयास , जागरूकता, जानकारी और महिलाओं को प्रेरित कर जो कैंसर स्क्रीनिंग का कार्य टीम कर रही है वह महिलाओं के स्वास्थ्य की दिशा में उठाया गया एक अच्छा प्रयास है ! भारत सरकार ने जो कदम कैंसर स्क्रीनिंग की दिशा में उठाया है एन आई सी पी आर की टीम ने उसे अपने अथक प्रयासों से आगे बढ़ाया है !

“एक पहल स्वस्थ भारत की ओर”

चंद्रेश प्रजा वर्मा
(मेडिकल सोशल वर्कर)
क्लीनिकल विभाग

8th Hands-on Workshop on Cervical Cancer Screening for Pathologists at NICPR Noida 26-28th July 2019



ICMR-AU-STRC Workshop on Cervical Cancer Screening for Pathologists ICMR-NICPR, 11 th - 13 th Sept 2019



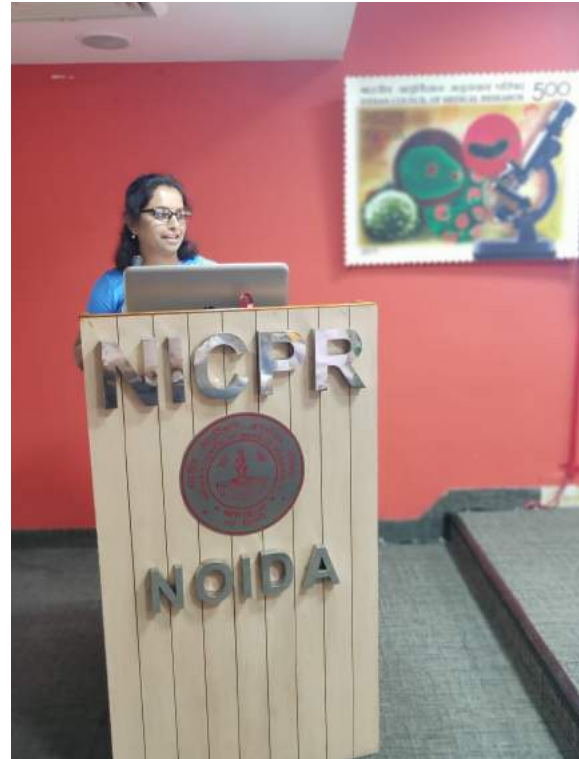
Workshop on "An update on Research Ethics and Good Clinical Practice" at NICPR on Sep 23, 2019.



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Experts talk followed by panel discussion on "Different perspective, One Goal" held at NICPR on Sep 24, 2019 in view of World Cancer Research Day.



UP Cytocon 2019, 28-29 September 2019



Breast cancer Awareness Month" observed by NICPR on 15th October 2019



International Meeting on Tobacco advertisement, Promotion and Sponsorship: Ban for Smokeless Tobacco 6–7 Nov 2019.



3-day hands-on workshop on Screening for Common Cancers Nov 5th to 7th, 2019



Project ECHO @ NICPR

ECHO is an online knowledge-sharing tool that shares knowledge through expert's didactics and case presentation by participants, which employs the philosophy of #MoveKnowledgeNotPeople #AllTeachAllLearn. We at NICPR have leveraged this tool to share our knowledge and expertise in the field of #PreventiveOncology for #CancerElimination. It is an easy to use and ubiquitously downloadable tool across various devices such as smartphones, tablets, laptops and desktops.

New Courses

Cancer Screening Training Program for Medical Officers (CSTP-MO8)

Cancer screening and early detection

NICPR ECHO empowers health care providers to update knowledge and skills in the area of cancer prevention. This entails incorporating cancer screening programs using the ECHO model to improve capacity and access to specialty care for rural and underserved populations

Mission of NICPR-ECHO

The mission is to build capacity in the area of cancer screening services among health care providers. This will empower them to carry out screening independently thereby enabling their services to be accessible to every eligible citizen in India.

There is an estimated burden of over 1 million individuals who were diagnosed with cancer in India in 2012. The three most commonly occurring cancers in India are breast, uterine cervix and oral cancers, together accounting for one third of India's cancer burden. All three are usually detectable at early stages, and malignancies of the oral cavity and cervix have precancerous stages that are amenable to secondary prevention. Therefore, screening and early detection of these three cancers will help to markedly reduce the cancer burden in India.

Training Modality at NICPR-ECHO

Due to prior awareness and medical knowledge about cancer, specialists and medical officers will be trained online on ECHO platform, following which they'll attend the hands-on training at NICPR, Noida.

- a. CSTP-MO program will be offered through out the year for medical officers in various states.
- b. Advanced level of training will be offered to specialists (gynecologists an

Screening Camps:

The Clinical division of the Institute extends the cancer screening facilities to the rural areas of Gautam Budh Nagar district by organizing screening camps at primary health centers (PHC) and community health centers (CHC) with the help of State Health authorities. Screening and awareness camps are also organized at CGHS clinics, ESI hospitals and nearby government institutions. Individuals attending the camps are screened for oral (visual examination), breast (clinical breast examination) and cervical cancer (Pap smear and VIA). Women diagnosed to have abnormalities on clinical breast examination are invited to attend breast clinic at NICPR which is run by Prof Anurag Srivastava, Head, Department of surgery, AIIMS and his team on every Friday 2 pm. Women positive on VIA examination and Pap smear are invited to NICPR for further evaluation using Colposcopy and biopsy if needed.

List of screening camps organized by NICPR

Sl No	Place and date of camp	Oral Exam	Clinical Breast Exam	Pap Smear
1.	2 JULY 2019 , Sai Sansthan Charitable Hospital, Sector 40 Noida (U.P)		17	15
2.	6 AUGUST 2019 , Sai Sansthan Charitable Hospital, Sector 40 Noida (U.P)		13	10
3.	3 SEPTEMBER 2019 , Sai Sansthan Charitable Hospital, Sector 40 Noida (U.P)		12	9
4.	1 OCTOBER 2019 , Sai Sansthan Charitable Hospital, Sector 40 Noida (U.P)		12	9
5.	9 NOVEMBER 2019 ,Cervical and breast cancer screening camp in collaboration with CMO, GBN (U.P) at CHC, Bhangel, Noida (U.P)		37	31
6.	29 NOVEMBER 2019 ,Cervical and breast cancer screening camp in collaboration with CMO, GBN (U.P) at Village Junpath, Dadri ,Greater Noida (U.P)		41	41
7.	3 December 2019 Sai Sansthan Charitable Hospital, Sector 40 Noida (U.P)		18	17

Mammography Camps organized by NICPR:

1. Aug 30, 2019 Mammography camp inaugurated by Dr. Shalini Singh at NICPR Noida in association with Rotary club of Delhi, Lutyens.
Screened women for Breast Cancer: 21

2. Sep 13, 2019 , NICPR Noida
Screened women for Breast Cancer: 29

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Other activities

Staff members retired after attaining the age of superannuation in the following months. Institute has given the farewell to all the members in the respective months.

S. No	Name of employee	Designation	Date of Retirement
1	Ms Sarita Saradana	Scientist B	30.10.2019



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